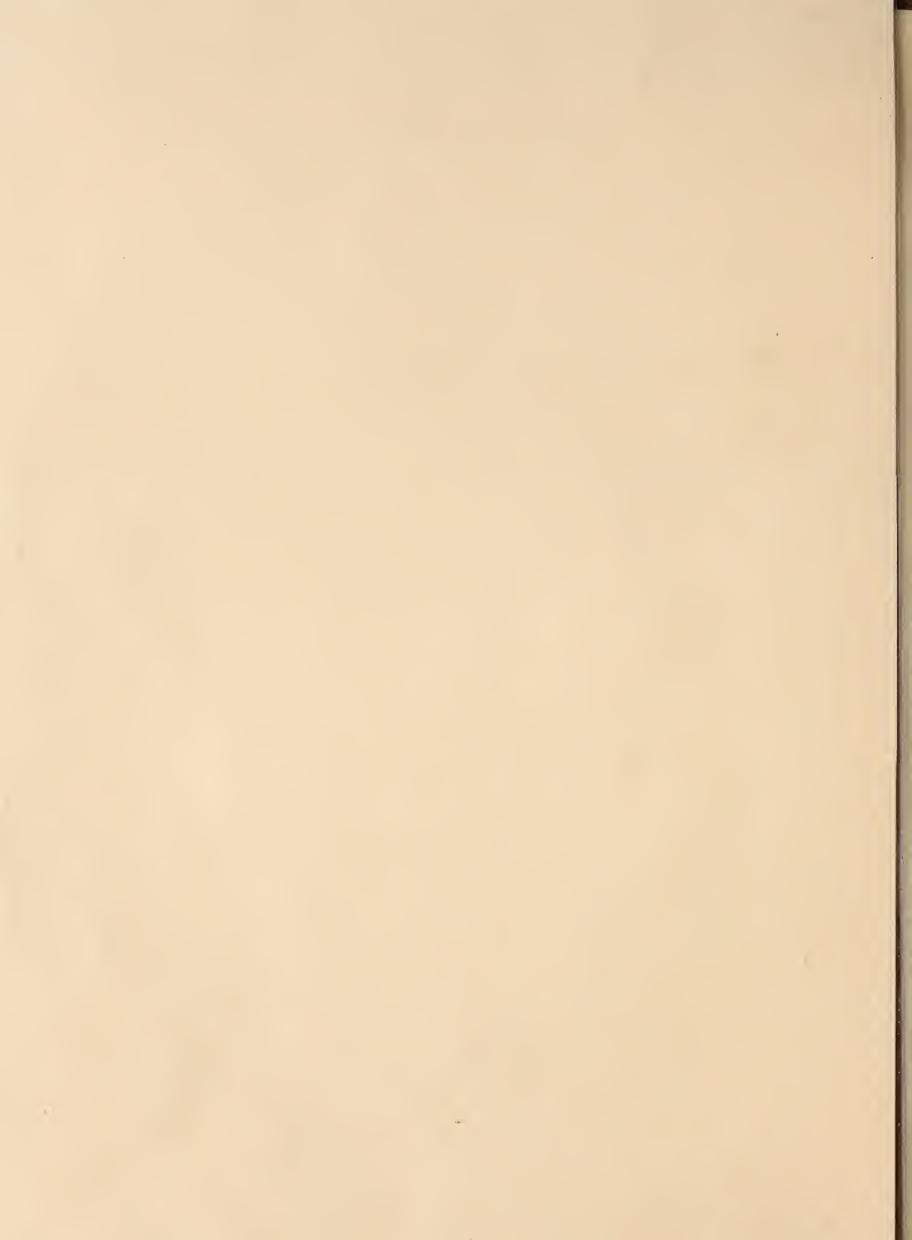
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DAILY DIGEST

Prepared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXXVII, No. 21

Section 1

April 29, 1940.

WALLACE SPEAKS IN ST. PAUL

"Secretary Wallace, in St. Paul Saturday, charged that the American Bankers Association, and 'some' state banking associations, are seeking to defeat the Department of Agriculture's program to establish the 32 per-

cent interest rate for farm loans on a permanent basis," according

to the New York Times yesterday.

"Because the current 31 percent rate is being maintained by a compensatory arrangement with the land banks which costs the Federal Government \$40,000,000 a year, Mr. Wallace has proposed that existing land bank bonds be replaced with government guaranteed bonds salable at a lower interest rate in the market. Such a program would require the recapitalization of every farm loan association in the country.

"Turning from credit, Mr. Wallace declared that the future was bound to raise many knotty problems for farm administration. He said that the war, regardless of whether this country entered it, would leave distress and disarrangement of past markets. He also warned the farmers against anticipation of war profits or a rise in demand for farm products."

WAGE_HOUR LAW "Opponents of major changes in the wage-hour law AND WRA TRADE engaged Sunday in intense maneuvering aimed at swinging enough farm votes to their side to assure defeat of the Barden amendments in Monday's house vote," according to the Baltimore Sun of April 29.

"Informed leaders said strategy centered around three-sided trading among city and farm-State leaders. They sized up the situation this way: If farm congressmen support urban votes against the Barden or other major amendments, city members will return the favor Tuesday by helping put across increased farm appropriations.

"In that event, sponsors for more money for relief will expect the support of rural representatives in a week or two when the 1941

WPA appropriation bill comes up."

Increasing turist for April, says: "Leading horticultural problem in Iowa in Iowa today, according to H. E. Nichols, State College of Agriculture, is building back production of fruit on the farm. An orchard was planted on nearly every Iowa farm by early settlers; by 1910 the farm orchard acreage had reached its peak. By 1930, however, only one-fourth remained of the acreage that had existed in 1910. After the recent drought years and the severe test winter of 1936 had passed, only a small fraction of the original farm orchard

acreage remained.....
"The Horticultural Extension Service has been carrying out a program which has been aiding farmers in establishing hardy, top-worked orchards on their own farms.....Seventy nine orchards have been planted in 19 counties....80 more orchards are to be set out this spring......
That this plan is proving popular is evidenced by the increase in acreage."

Bindweed

"A series of tests were made in Atchison County,
Tests in

Kansas, to determine the domage to crops done by bindweed," according to Capper's Farmer for May. "At the
Henry Canning farm, wheat on infested land made 15
bushels. That on land free of the weeds made 24.4 bushels, or 63.3
percent more. At the Steffen Scyland farm, (the wheat) on clean land
made nearly twice as much as that on infested land. Yields were 23.5
bushels an acre on clean land and 10.4 on infested. Oats on weedfree
land at the Mark Cooper farm made 33.3 bushels and that on infested
soil 14.6 bushels. The least damage was done on rich bottom land at
the A. H. Lange farm where oats on weedfree land made 58.2 bushels an
acre and that on bindweed land 53.4 bushels."

Germ Killers

"Conquest of the entire world of disease-producing in Soil May germs seems possible as the result of the discovery, reConquer Ills ported to the National Academy of Sciences, of germs in garden and field soil which destroy disease germs of the gram-negative group. The discovery was made by Drs. Selman A. Wakeman and H. Boyd Woodruff of the New Jersey Agricultural Experiment Station," says Science Service.

"Disease germs of the gram-positive group can also be destroyed by chemicals extracted from the germs found in soil, Doctor Rene Dubos, a former student of Doctor Wakeman, and now at the Rockefeller Institute for Medical Research, has just reported. Since all disease germs belong to either one or the other of these two groups, the discovery announced here seems to herald the rapid approach of man's triumph over germ-caused disease, even if many years must yet be spent in searching for methods of applying these two discoveries in practical germ-fighting."

Butterfat "That butterfat has 'something' other fats have Feeding not has been amply proved by experiments conducted on Experiments animals at the University of Wisconsin recently," according to Dairy World for April. "All the known vitamins of butterfat were added to skim milk, to which was added a certain vegetable fat or butter for the feeding experiment. None of them produced the same growth that was produced by the skimmilk-butterfat combination.

"It is reasonable to assume that these same experiments, if carried on with humans rather than with animals, would have a similar result. The butterfat produced better growth and better health than the other fats, such as corn oil, cotton-seed oil or soybean oil, all of which were used in the experiments. Repeated tests gave the same results.

"Evidently there is also something else in butter or a combination by some 'secret' formula that has much to do with promoting health and growth. This equips the dairy industry with additional sales ammunition in its competition with the substitutes that are adding vitamin A and promoting a product to take the place of butter in the diets of children and adults."

1% Disease

"Among the 11,695 North Dakota beehives inspected in N. Dakota in 1939, J. A. Munro, in charge of inspections, reports Beehives

finding 142 infected with disease, chiefly American foulbrood," according to the Dakota Farmer for April 20.

"This is just a bit more than 1 percent, which does not sound very bad, but it isn't a good enough record for North Dakota, and the areas where the disease was found in 1939 will be reinspected in 1940."

9 States Vie According to Claude Gifford in the Iowa Agriculin Advertising turist for April, "Putting the state governments into
Farm Products competition has been the result of recent legislation
on state agricultural advertising proposals. A recent
survey reveals nine states have already enacted such legislation.
This group included Iowa, who is pushing dairy products. It is believed
that this practice will soon attract considerable attention — and not
too favorable. There are too many products in each state for the state
government to single out one or two for favored advertising without
precipitating unfavorable repercussions."

Orchard

Persons in California intending to plant orchards
Certificates consisting of one or more acres of a single plantation
are required to get a certificate, Harold J. Ryan, agricultural commissioner, said recently in explaining a new section of
the state agricultural code. This legislation was sponsored by
growers with the idea of creating and keeping up to date an accurate
record of tree plantings in the state. There is no charge for the
certificates. (Citrus Leaves, April.)

War News

"Liquidation developed last week in the wheat
Loses Effect market following an advance on last Monday which lifted
On Wheat prices to the highest marks since September, 1937, the
May future on the Chicago Board of Trade selling at \$1.13
a bushel," according to the today's New York Times. "Hedging sales
against loan grain, combined with liquidation by speculative holders of
May futures who desired to escape paying for cash grain on contracts,
caused the May to show the most weakness, and it lost ground, compared
with the new-crop months."

Brazil Cotton

"As has been already announced, the first Sao Paulo
Estimate 1939-40 cotton crop estimate, which was recently corrected,
Reduced is 290,000,000 kilos of lint cotton, compared with
273,000,000 last year, according to the New York Journal
of Commerce for April 29. Due to conditions prevailing March 1, an increase of 5 percent was expected. Had it not been for the unusually dry
weather in March, this estimate would have been reached easily, if not
surpassed, for at least 35 percent more seed has been distributed this
year."

Farm Income

"The USDA reported Wednesday that farmers' cash income

Gain 12% for for the first quarter of 1940 was twelve percent higher

than a year ago, a total of \$1,987,000,000 as compared with
\$1,773,000,000," says the Baltimore Sun, April 25. "The

farm marketing income of \$1,696,000,000 was 7 percent higher than the

\$1,581,000,000 received in the first quarter of 1939. Government benefit

payments totaled \$291,000,000 in the first three months of 1940 as compared with \$192,000,000 from January to March last year."

Bang's "A court decision in the Seventeenth Judicial Circuit Disease gave the State of Virginia another victory recently in its Control fight to retain the slaughter method of Bang's disease control," according to the Richmond Times-Dispatch of April 26. "Judge Phillip Williams ruled that the State had tested properly the cows of G. L. Stickley of Strasburg, who had obtained an injunction to stop the slaughter program so far as it concerned him. In a decision rendered last summer, the judge held the Bang's disease act constitutional.

"Stickley, who consented to the vaccination method of control, was granted a 30-day suspended order by Judge Williams to allow him time in which to appeal to the Supreme Court of Appeals. The plea for a review of the case will be decided at the June term of the higher court at Wytheville and, if granted, will be acted upon at Staunton in September."

DAILY DIGEST

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Vol. LXXVII, No. 22

Section 1

April 30, 1940.

FRANK D. SMITH "Frank D. Smith, assistant chief of publications of the Department, died suddenly Saturday at his home. His death ended a career just short of 50 years in Government service. A native of Reynoldsville, Pa., Mr. Smith in early life engaged in the newspaper business. He was at one time publisher of the McDonald (Pa.) Record. From 1918 until his death, Mr. Smith served as liaison man between the Department and the Government Printing Office. He collaborated in getting out the Government style manual." (Washington Star, April 29.)

INSURED COTTON "Claims that insured cotton warehouse receipts
WAREHOUSE constitute double insurance have been fully considered
RECEIPTS and requests that allowance be made on the marine
cotton policy, under which cotton is insured against
all risks wherever located, have been 'decided in the negative,"
Edwin G. Siebels, Manager of the Cotton Fire and Marine Underwriters
of Columbia S. C. and New York, told the third annual convention of
the National Cotton Compress and Cotton Warehouse Association at New
Orleans Monday," according to the New York Journal of Commerce, April 30.

"Mr. Siebels told the gathering that the insured warehouse receipts and the marine policy cover different assureds and different interests. Furthermore, he stated that underwriters have no means of knowing in all cases 'whether the insurance behind the insured receipt is worth the paper on which it is written' and said that laws forbidding discrimination prevented crediting the insured receipts of one warehouseman and denying such credit to another."

RECORD CORN

"Stocks of corn totalling 1,415,000,000 bushels on CARRY-OVER

April 1 and a sharp decline in export demands indicated to the USDA Monday that there would be another record October 1 carry-over," according to the Washington Post of April 30.

"April 1 stocks were 150,000,000 bushels above a year ago and 500,000,000 bushels above the 1929-33 average."

New Rust—
Free Wheat and the most destructive of wheat's fungus foes, black
Strain Found stem rust," says Science Service. ".....Many a hopeful
immune strain of wheat has been developed, only to be
overtaken in a few years by a new strain of rust fungus. Newest recruits to the army of immune wheats are announced from the Dominion
Rust Research Laboratory at Winnipeg, Canada. There are six new wheat
strains, five from seed imported from Kenya Colony in Africa, the
sixth a native Canadian product. All six have thus far shown very
high resistance to 20 strains of rust, to which they were purposely exposed.

"The one all-Canadian wheat variety in the group owes its existence not to professional scientists but to an observant farmer, M. S. J. McMurachy, who noticed one rust-free plant in a field of rusty wheat, one day ten years ago. He kept the seed and increased it. When his planting of the new variety came triumphantly through the bad rust season of 1935 he brought it to the attention of the Winnipeg laboratory.

"Quite properly, the new variety has been given the name McMurachy's

Selection."

Pink Bollworm "The appearance of the pink bollworm in South Texas Threatens U. S. constitutes a threat not only to the welfare of cotton Cotton Industry growers of the United States, but to our entire population," writes Congressman Richard Kleberg of Texas in his article in the National Grange Monthly of May. The article describes the life of the bollworm, its dissemination, its high destructive power, and its control. The young pink bollworms are hatched from eggs as caterpillars. These bore holes and penetrate the flowers, buds and young bolls of cotton, causing them to drop off the plant. In a later stage they become fragile moths which are blown and spread by winds to new cotton fields. If these fields have been planted early in spring the cotton at this time would be blooming and the moths would thrive and lay their eggs and thus repeat the cycle. Hence one effective means of control is the late planting of cotton. Other means are the sterilization of seed, burning of cotton waste, and the cleaning up of fields of all living cotton after picking. The author believes that the House should agree with the Senate in appropriating \$908,808 to control this pest arguing that the spread of the bollworm will destroy the cotton industry.

Lots of "Official reports indicate that at the end of Turkeys March, there were in round numbers 65 million pounds of turkeys in storage in the United States. This is double the amount ever before held at this season of the year. Producer groups have earnestly requested chain stores, restaurants, hotels, grocers and others to cooperate in the disposal of this large surplus of turkeys," states the May issue of the National Grange Monthly.

Science Turns

Food chemists working in the Bureau of Dairy
Curds, Whey to
Industry USDA, are transforming curds and whey from
Practical Uses

upappetizing foods into varieties of plastics, foods
and beverages. Dr. Frank Thone, in a Science Service
Story in the San Antonio Express of April 23, describes some of the
new uses.

"Whey like curds can now look hopefully to large-scale markets in both food and non-food industries....One of the most interesting is a mixture of condensed whey and potato flour, worked up to a smooth paste and spread and baked in strips. It produces crunchy, faintly cheese-flavored safers....

"The plastic on which work is now being concentrated is one of those interesting substances that stretches and returns to shape not with a spring and snap like rubber, but with a slow deliberate motion....The same rubber made from milk plastic is highly waterproof and (what may have military signifigance) is gasproof as well. Fabrics impregnated with it can be used in making tight gaskets, protective clothing and many articles for which rubber is now used, surpassing rubber for some of these purposes."

Rabbit "The rabit industry is having a sound growth in the Efficient United States," according to the Pacific Rural Press of Food User April 20. "Dr. G. S. Templeton, head of the U. S. Rabbit Experiment Station at Fontana, is having inquiries and visitors from all over the United States, and says the rabbit industry is increasing, and deserves a much larger place in production in the United States, particularly in California."

"He bases this on the fact that rabbit meat is good meat, and deserves better attention from buyers, and on the fact that it is the most efficient meat we have. A pound of rabbit meat can be produced with $2\frac{1}{2}$ pounds of grain and $1\frac{1}{2}$ pounds of alfalfa hay, which is better than you can do with any other animal, and there is a rather high carcass efficiency to rabbits. When you dress a fryer rabbit at the age of eight weeks, weighing a little better than four pounds, you get 51 to 55 percent carcass, which is much better than can be done in the case of poultry, and a ten pound rabbit for the roasting trade will dress out about 60 percent. So Doctor Templeton insists the rabbit is the most efficient food user to be found."

Hybridization of Japanese Hulless popcorn resulted Corn Gives in 16 percent better yield and 29 percent greater popping Better Yields volume, the Minnesota Experiment Station reports," according to Capper's Farmer for May. "The cross matures earlier than the open-pollinated and is somewhat less susceptible to smut. Ears are white, three to four inches long, and uniformly cylindrical. It is known as Minhybrid 250."

New Cotton "A cotton new to J. R. B. Cain's community in Variety Ups Freestone County, Texas, is proving so well adapted Texas Yield to conditions that it is displacing Mebane, which has been standard in this area," according to Capper's Farmer. "The new variety, Acala. 111, is ten days earlier, and the plant's branching habit is such that it does not shade the ground as much as Mebane. These characteristics make it less subject to insect damage. Cain tried it on four acres and got 109 pounds more of lint an acre. It measured better than 1½ inch staple length, and brought 1.4 cents a pound more than Mebane, so Cain got seed for 82 acres. For Aubry Bass and John Blakeney, Cain's neighbors, it doubled yields, so they switched to it for their entire acreage."

Injured Plant "Large and mature plant cells have been stimulated Cell Shows by injury to divide again throw much light on the How it Grows processes of cell division, it is indicated by experiments reported by Prof. E. W. Sinnott and Dr. Robert Bloch of Columbia University to the National Academy of Sciences," says Science Service. "Such cells are hundreds of times as large as the cells of ordinary embryonic tissue and the processes of division in them may therefore be observed on a greatly magnified scale. An important feature of this process, and one which has not been recognized before, is that the cytoplasm of the cell is distributed very early in the exact position which will later be occupied by the new wall. This fact is important for an understanding of plant development, for it indicates that the entire living substance of the cell, and not the nucleus alone, determines the plane of cell division and thus the direction of growth."

WPA Cited

"Millions of farmers and their families live better
As Help to
lives today because of the facilities and improvements
which the WPA has helped rural communities to obtain,"
according to Col. F. S. Carrington, (Commissioner, WPA)
in the Prairie Farmer, April 20. In citing the work done by WPA in
Illinois, Indiana, Wisconsin and Michigan, which he says is "typical of
that accomplished by WPA workers in every part of the country," Col.
Harrington lists 71,000 miles of rural roads constructed, 1,600 storage
dams built, 15,550,000 trees planted, 313 miles of stream beds improved
and 1,327 flood control dams built.

Tear Gas

"A peace time use of chloropicrin, World War tear
Insecticide gas, has been reported. It is used successfully in the
control of insects in store products. It is effective
in the sterilization of the soil. Nematodes, soil fungi and insects
had been successfully controlled by the use of chloropicrin." Manila
(P.I.) Agriculture Life, for March.

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Vol. LXXVII, No. 23

Section 1

May 1, 1940.

BRITISH TO CUT

"British purchases of American foodstuffs will be
BUYING OF U.S. decreased 20 percent this year as compared with normal,
FOODSTUFFS 20% Ronald H. Cross, British Minister of Economic Warfare,
declared Tuesday in addressing the American Chamber of
Commerce in London, according to the New York Journal of Commerce today. "Great Britain will purchase sixteen million pounds worth of
American foodstuffs this year as compared with normal annual purchases
of some twenty million pounds, Mr. Cross estimated."

WHEAT RUSHES that loans advanced to farmers on 1939 grain matured,

TO MARKET favorable weather over the grain belt and selling of May

contracts prior to the delivery period caused a decline

of 3/4-1 1/2 cents in wheat prices in Chicago Tuesday," according to
today's Baltimore Sun. "All loans on wheat which are not eligible for
estension and which have not been paid off now are due, according to
Government plans, and unredeemed wheat will be pooled."

BRITISH COTTON "Official decrees of the British Government restricting POLICY TO HIT the sale of cotton and other domestic consumption to about U.S. EXPORTS 75 percent of pre-war trade has 'clouded' the outlook for cotton exports from the U.S. for the remainder of the season, the USDA reported Tuesday," says the New York Journal of Commerce for May 1.

".... The department pointed out that the home trade of the United Kingdom is estimated to account for the output of about two-thirds of the output of cotton textiles, and said that the official orders of the Government may have the effect of reducing consumption over a long period."

FOOD TRADE PROBE

Speaking of the rumored investigation to be made

of the food industryby AssistantAttorney-General Arnold,
Business Week, says, "The investigation will take in collateral lines,
such as glass and tin containers, and will cover food manufacturers as
well as distributors, chain and independent, labor, particularly truckmen...."

Farm Labor

"When the LaFollette Civil Liberties Committee
Troubles Quiz opens hearings Thursday an attempt will be made to
Begins Thursday show that the agricultural labor troubles in California have a broad national implication, according to the New York Journal of Commerce of April 30. The committee found that its investigation of migrations of farm workers and of the actions of associated farmers in this area does not represent by itself a true picture of underlying economic conditions found also in other regions. Experts will be called to round out the story beyond the alleged violation of civil rights in labor disputes on the West Coast."

Burnt Fumes "The fading of acetate dyestuffs, also known as store fading and acid fading, has been a puzzling Found Cause of phenomenon for approximately eight years," according Store Fading to the American Wool and Cotton Reporter of April 25. "Green, blue and gray dresses, that never left the New York stores often showed a mysterious fading, and claims were made against the dyers. This fading was already in its early stages attributed to the influence of nitrous acid, but no explanation could be given how nitrous acid should be found in any store room. The problem was finally solved by Rowe and Chamberlain, who in a most thorough and interesting paper, published in 'The Journal of the Society of Dyers and Colorists' in 1937, proved not only that the nitric oxide was the cause of the fading, but also located the source of the gas in burnt fumes. When any combustion takes place some nitrogen of the air combines with

Nylon Apes

"Nylon, versatile synthetic fiber material which
Wool in New is now entering the fine hosiery field because of its
Dupont Patent silk-like qualities, may next tackle natural wool as
a competitor," says Science Service. "A new patent,
issued on April 19 by the U. S. Patent Office, covers the production
and processing of a crimped wool-like fiber made from nylon. The new
patent is issued to John Blanchard Miles, Jr., scientist of E. I. du

oxygen to nitric oxide, and though the amount is always small, it is sufficient to cause the fading of the dyes. So far we have no complete

Pont de Nemours and Company, and is assigned to du Pont.

and satisfactory solution of this problem."

"The new wool-like nylon is said to approach, and 'may even equal' wool in its heat-insulating properties," the report continues. "Other claims of superiority include strength, heat stability, dyeing characteristics, elasticity, mothproofness and immunity to any harmful action by common cleaning fluids or processes. E. K. Gladding, manager of the nylon division of du Pont, says there is no immediate commercial production planned for the new wool-like fiber. Such production will require new types of manufacturing equipment, all of which must yet be designed and built."

Increase Raw
"The only way to avoid constant political interCotton Uses, ference with the growing and merchandizing of raw
Says Murchison cotton is to increase the consumption of this raw
material by at least 25 percent," said Dr. Claudius
C. Murchison, president of the Cotton Textile Institute, to members of

the American Cotton Manufacturer's Association, at its annual convention Saturday at White Sulphur Springs, West Virginia, according to a story

in the New York Herald Tribune for April 28.

"With export markets likely to dwindle as the war spreads over the greater part of Europe," he continued, "the time may not be far off when even a 12,000,000 bale crop may be excessive unless mills develop new outlets for cotton products. If cotton consumption should dwindle, the pressure for benefit payments to farmers would be so strong that Congress would not be able to resist it and would probably impose a permanent processing tax on the raw material."

He urged that the industry cooperate with the National Cotton Council and the Cotton Consumption Council in developing a unified program of cotton promotion aimed at increasing the consumption of cotton goods by at least 25 percent, or about eleven billion yards annually, as compared with the present rate of nine billion yards.

Sugar Beets "Healthy, normal sugar beets cannot be produced on Need Borax soil deficient in boron. For many years the cause of a 'disease' known as heart rot was unknown, until during the last few years it was shown that it is not a disease but a physiological breakdown of the beet tissue due to a deficiency of available boron in the soil, /according to R. L. Cook in the Michigan Farmer of April 27. "After several years of experimental work in the greenhouse and field," he said, "it has been shown that borax is a sure cure for heart rot."

Prune Pit Oil . "From the pits of prunes comes a new and promising Promising California by-product, prune pit oil, reddish in color with pleasant aroma and taste," says Science Service.

"Relatively rich in vitamin A and apparently in vitamin E. Authority: Dr. Agnes Fay Morgan, head of the home economics division of the University of California's College of Agriculture."

Waco, Texas, Named Secretary Wallace today announced that the Food For Stamp Plan Stamp Plan will be extended to Waco, Texas, and the rest of McLennan County. A recent estimate gives the population of McLennan County as 110,000, of whom approximately 70,000 are in the city of Waco. It is estimated that there are about 7,700 relief cases in the area, representing some 24,300 individuals. Actual operation of the program in the Waco area is expected to begin in about a month.

Maryland Governor O'Connor of Maryland recently took steps
Would Extend looking toward the extension of the food stamp plan
Stamp Plan over sections of Maryland other than Baltimore, where
the plan is being launched today, according to a recent
report in the Baltimore Sun. According to the Sun, "The Governor
announced that he had instructed J. M. Patterson, Director of Public
Welfare, to undertake studies to ascertain whether the plan could be
set up in several sections of Maryland." Meanwhile, Irvin T. Quinn
arrived in Baltimore to take charge of the inauguration of the plan
there.

Lubin Says

"Five Eastern States, Maryland, Virginia, Delaware,
Migrants Now New Jersey and Florida, now face the social and economic
in East problems of the migrant worker, Isador Lubin, Commissioner
of Labor Statistics, declared recently, according to a
report in the Washington Star. "Though the FSA and other Federal
agencies have done much to provide better living conditions for migrant
workers, the scope of the problem has broadened, Mr. Lubin pointed out.
Two current trends are of particular significance; one is the larger
proportion of migrant families. Earlier, most of the migrants were
unattached men. The other is the extension of the problem to certain
Eastern States."

Science Marches "May and June will see a hundred big dusters fight—
On, Aiding ing bugs in pea fields in the Pacific Morthwest," says
Agriculture the Farm Journal and Farmer's Wife for May. "Because
of the effectiveness of these dusters (with aprons behind) in killing insects, a new canning plant will be built at Walla
Walla, Washington. It will do an annual business of \$750,000.....
Thus a branch of agriculture capable of producing many millions of
dollars is assured security and growth. For all this, scientific
research in pest control should get a big slice of credit."

Paper Lauds

Jimmy Johnson of Jefferson, Georgia, in winning
Raising Live the two highest awards in the annual Fat Cattle Show
Stock in Ga. and Sale at Atlanta, has aided in the practical
establishment of a real livestock industry in the state,
according to an editorial in the Atlanta Constitution. The importance
of the achievement lies in the fact that the winning animals are
Georgia-bred. "When Georgia has a state-wide established livestock
industry, breeding and raising her own cattle, this state will at last
be on the highroad to that diversity of agriculture which is essential
to farm prosperity," the article continued.

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Section 1

May 2, 1940.

HOUSE MAY

"The House on Wednesday tentatively agreed to exempt EXEMPT 200,000 an additional 200,000 agricultural workers from the wage-FARM WORKERS hour law, but rejected a proposal to exempt hundreds of thousands of agricultural processing workers from the maximum hour provisions," according to the New York Journal of Commerce for May 2. "The chamber voted 149 to 56 to revise the pending Norton bill, embodying comparatively mild wage-hour amendments approved by the Labor Committee, to exempt from the statute all workers covered by the Social Security Act's definition of 'agriculture.'"

HOUSE UNIT VOTES "The House Agricultural Committee, in effect, voted TO CONTINUE Wednesday for a continuance of the present sugar control SUGAR QUOTAS law without change in existing quotas, but left to a later meeting its decision on the question whether limitations on imports of off-shore refined sugar which expired in March are to be restored," according to the New York Journal of Commerce today.

"It was announced...that Representative Fred Cummings (D. Colo.), chairman of the Congressional sugar bloc, has been instructed to prepare the continuing legislation and as soon as it is introduced another meeting would be held to report the measure to the House for passage."

TURN SILVER

"An effort to turn the tide of opposition in the SALE TO BUY

Senate to the Administration's foreign silver purchase FARM PRODUCTS program by converting the program into a plan for aiding exportation of American farm products was launched Wednesday by Senator Pittman (D., Nev.), according to the New York Journal of Commerce for May 2.

"Senator Pittman proposed that purchases of foreign silver be continued on condition that money received by foreign governments from the sales of silver to the United States be used exclusively for the purchase of American farm products."

BRITISH STOP

"Reliable advices received by the Institute of American
PORK EXPORTS; Meat Packers indicate that additional supplies of pork are
SAVE EXCHANGE not now and probably will not be required by the United

Kingdom in the immediate future, says the New York Herald
Tribune, today, in a story from Chicago. Shipments of fresh and cured pork
and pork products from the U.S. to the British Isles have been completely
stopped, the British basing their embargo upon a desire to conserve exchange
available in this country.

Cotton Shippers' Dilemna "Fears the cotton trade had been placed in the position of having to choose between favoring a high loan on the 1940 cotton crop or Secretary Wallace's plan for marketing certificates clouded the final

sessions of the annual convention of the American Cotton Shippers'
Association in New Orleans Saturday," according to the New York Journal

of Commerce for April 29.

"Following the unexpectedly strong address of President Carl B.
Robbins of the Commodity Credit Corporation the previous day, which
emphasized the alternatives of either of these two plans or Government
price fixing, the convention went into executive session, but failed to
make public the expected important annual report of its National Affairs
and Contact Committee.....

"Comment among the shippers and cotton men here following the close of the convention was that strong backing exists in Washington and the South for a 12¢ a pound loan on the 1940 cotton crop. The belief was current that such a program would be adopted by the CCC, perhaps reluctantly, unless the marketing certificate plan received adequate backing in the meantime."

Outlet For "Whey Solids in Candy" is the title of an article
Whey Solids by B. H. Webb and C. F. Hufnagel, of the Bureau of Dairy
Industry, in the March-April issue of Food Research.
The authors say: "It was demonstrated that excellent candy containing
up to 40 percent whey solids could be made, the whey replacing, in
part, sugar, skim milk, and corn sirup. Adjustments were made in
handling technique and in formulas to allow for the effect of whey upon
sucrose inversion and for the development of proper body through control
of the physical state of the lactose. Directions for making various
types of whey candy, including formulas which utilized the whipping
properties of sweetened condensed whey, are presented."

Ants Gather "Buffalo grass seed is hard to obtain," says Buffalo Grass Capper's Farmer for May. "Technicians of the soil con-Seed in Texas servation service had noticed that red ants often piled good, viable seed around their nounds in Bell County, They suggested that Frank Mayborn, who wanted some, try gathering it around ant hills. In two days a man with a streetsweeper's broom swept 788 pounds of seed and foreign material into piles. This was shoveled into sacks and 201 pounds of pure seed were taken from it by recleaning. Samples were sent to a state branch experiment station where tests showed a germination of 40 percent. In a similar test, 43.4 percent of the seed gathered from buffalo grass turf germinated. W. J. Neumann, of the soil conservation service, says the grass gathered by Mayborn is sufficient to seed 25 acres if drilled in 3-foot rows and permitted to cover the ground by spreading.

Anthony In a signed article in the New York Journal of Praises Commerce recently, Marc Anthony, retiring President of Subsidy the American Cotton Shippers' Association, says in part: "While this association went on record in its meeting last April as opposing the export subsidy, I want to state that it has proven of great importance this season in the exportation of U. S. cotton, and give full credit to the USDA, not only for making the subsidy available, but also for the excellent manner in which it was administered. Offices were established at convenient locations,

and in remarkably short periods of time shippers were reimbursed to the extent of their claims.

"It is my recommendation that, if a subsidy is to be provided on the next crop, announcement be made at as early a date as is possible,

for the reason that until such definite announcement is made, the purchase of American cotton will be practically at a standstill, and furthermore that sufficient study be made so that when announcing a subsidy, the Government can give assurance to the trade that there

will be no advance in this rate."

New Tomato

"Science has produced a new tomato that seems immune Aids Fungus to a disease that threatened the plant's existence," acFight cording to the Minneapolis Tribune recently. "It was done by back-tracking to the tomato's wild ancestors and starting all over again to domesticate the plant. The disease is a fungus growth -- fusarium wild -- that is killing millions of plants a year in 44 states. But the growth apparently cannot touch the new plant developed by Dr. C. M. Tucker of the University of Missouri college of agriculture.....

"In 1934 an entomologist in Peru sent a wild tomato to the Missouri Experiment Station. Between 1935 and 1939 seedlings from this wild plant were 'given the works' and demonstrated their ability to take it. Exposed constantly to the wilt, it resisted successfully. Of 2,500 plants transplanted to fields, none was killed by the disease and only ten showed slight discrimination of the vascular tissue in the stem. Now Doctor Tucker has hybrids with tomatoes as large as baseballs — the kind canneries want. The plants will be on the market soon."

German Food "Short food rations, brought about by the dislocation Shortage of German farm production and the Allied blockade, may weaken the power of resistance of the German nation, it was stated Monday in a report made public by the USDA," according to the New York Herald Tribune of April 30. "The report was prepared by Harry L. Franklin, senior agricultural economist, who spent twelve years in Germany studying economic problems. Mr. Franklin drew the conclusion that in a short war Germany might be able to get along by tightening its belt, but that should the war continue over a long period, the highly efficient German farm production might break down, causing a severe food shortage."

Consumers Buy

"An increased consumer demand for all classes of
More Meat, Up meat, followed by improved prices for all classes of
Wholesale Price livestock, are features of the recent and current
livestock and meat trade, according to a review issued
in Chicago Wednesday by the Institute of American Meat Packers," says
the New York Herald Tribune of May 2.

"As a result of the improved consumer demand for the available supply of meat, wholesale prices of pork, beef, veal and lamb advanced

somewhat during the month."

Soybeans

"The efficiency of the egg yolk as an emulsifying
For Salad agent has long been attributed to its high phosphatid
Emulsions content," says an article by Betty M. Watts and Lura
Morse, of the University of California, in Food Research
for March-April. "Since soybeans are second only to egg yolk in
phosphatid content," the authors continue, "the possibility was suggested
that they also might be utilized in the preparation of salad emulsions.

"Benzine-extracted, undenatured, soybean flour, heated with water, was successfully used as an emulsifying agent in the preparation of salad dressings. The emulsions obtained were less finely dispersed than those prepared from an equal proportion of yolk solids, but were practically identical in droplet size to eggwhite emulsions made over the same formula. The relative viscosity of the soybean dressings was much greater than those from either yolk or white, making possible the preparation of inexpensive salad dressings containing a low amount of oil with the soybean flour as the sole emulsifying and thickening agent.

"The fat-free soybean flour was also used to replace egg white in combination with egg yolk as an emulsifying agent but the characteristic high viscosity of the cooked soybean flour was lost on addition of yolk."

"Wool" From "Two patents have been issued to the Cotton Research Cottonseed Foundation on processes for the preparation of the same type of protein as that extracted from milk in Italy and made into artificial wool, Dr. L. W. Bass, in charge of the Foundation's work, said here yesterday," reports the Memphis Commercial Appeal, April 24.

"There is no reason why the substance could not be used for making wool-like fiber, Doctor Bass said. We are making it now for 10 to 15 cents a pound under industrial conditions. Manufacture of the filaments from the protein would, however, require dissolving it and precipitating it in the way rayon is made, he said."

The scientist thinks that cottonseed protein wool is likely to improve with research until commercial production is practical.

"The foundation has completed a thorough examination of the mechanical properties of cotton fibers, and will soon publish some technical articles to inform cotton researchers," he said.

DIGEST

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Vol. LXXVII, No. 25

Section 1

May 3, 1940.

WALLACE WARNS OF BASIC EVILS OF AGRICULTURE

"Secretary Wallace Thursday warned the Senate Civil Liberties Committee that 'basic eyils' afflicting American agriculture must be corrected if the nation's army of migrating farm workers is to be cut below, or

even held at, its present size," according to the New York Journal of

Commerce today,

"He appeared at first witness in the committee's new hearings on the migratory worker problem Terming plight of the migrants 'a warning to the nation, Wallace said their problems 'are rooted deep in certain basic evils which have afflicted American agriculture for years. They arise directly out of the waste and exhaustion of our soil, which has gone unchecked for more than a century; years of ruinous farm prices; the disappearance of foreign markets; unsound systems of tenure; an alarming increase in farm tenancy; the development of types of agriculture unsuited to the soil and climate; and the rapid development of a large-scale, industrial type of agriculture. "

DEPARTMENT HAS NEW PROGRAM FOR COTTON BAGGING

"A new program to encourage manufacture and sale of bagging made from cotton for use in covering cotton bales was announced Thursday by the division of marketing and marketing agreements of the USDA, " according to the New York Journal of Commerce for May 3.

STAMP PLAN REACHES PEAK IN BALTIMORE

"Baltimore's needy flocked so thickly to food stamp distributing centers Thursday that Irving Quinn, local director, called the reception 'about the peak of any of the seventy-five areas opened so far, " says the

Baltimore Sun today. "Although the opening had been planned so that there would be little relief money in circulation, Mr. Quinn was astounded Thursday night when the total of stamps sold the second day almost reached the \$10,000 mark, which had been set as the probable peak for any single day."

J. L. Henderson, D. C. Foord and C. L. Roadhouse, Paper Milkof the University of California, are authors of an Containers article, "Influence of Sunlight on Flavor and Ascorbic Acid Content of Milk Exposed in Three Different Types of Paper Containers," appearing in Food Research for Morch-April. The article says in summary: "Three types of paper milk-containers of different paper stocks were compared for protective effects against the flavor production and ascorbic acid destruction caused by exposure to sunlight. All the paper containers were found to exhibit greater protection from the effects of the light rays than did clear glass milk bottles. Paper containers studied varied greatly among themselves in their ability to protect the milk from the development of 'sunshine flavor.' The container made of thick paper with unbleached or colored inner plies gave complete protection against the flavor defect and nearly complete protection against ascorbic acid destruction. The effect of sunlight on ascorbic acid destruction was found to be useful as an index of the effect of sunlight on milk flavor."

Vacuum-Dried Chemistry and Industry (London) for April 13, carries Foodstuffs an article on "Vacuum-drying of Foodstuffs," which says, in part: "Rapid freezing, with subsequent storage at low temperatures, is probably the most effective way of preserving the desirable properties of foodstuffs. If, however, the moisture present in the frozen foodstuffs in the form of ice is removed by evaporation in a high vacuum, the desiccated products can be transported and stored without the need for refrigeration, and there is in addition a large saving of weight. In view of these possibilities, a small-scale plant, designed to dry foodstuffs at low temperatures, has been in operation at the Low Temperature Research Station during the past year on behalf of the Food Investigation Board of the Department of Scientific and Industrial Research. Many different foods have been dried, such as fruit, vegetables, fruit-juices, meat, eggs, butter and milk, and it is now clear that the products obtained are in general superior to those obtained by other methods of drying."

Weather American Geophysical Union heard Dr. H. C. Willett, of the Massachusetts Institute of Technology, report encouraging results in predicting the weather five days ahead by studying meteorological data gathered from the entire northern hemisphere," a recent report of the Washington Post said. "To date 70 percent accuracy has been attained — appreciably lower than the record of the United States Weather Bureau, which makes no forecasts more than 48 hours in advance."

Breeding to "Thus far science has been unable to unlock the Ban Tumors mystery of tumors," says Dr. C. D. Carpenter in the American Poultry Journal for May. "Much is known of their behavior in certain species of animals, including humans and birds, but just what causes these growths to start, or why they attack certain areas of the body, is unknown. A tumor is new growth, persistent, unwanted new tissue which grows independently; has no physiologic use.

"Fowl paralysis is a broad term used to designate an infectious disease of chickens, caused by a virus, and which may attack many, several or only one part of the body. Primarily, the nerves are involved, in which case tumorous areas develop, which in themselves are seldom fatal, but lead to gradual enaciation and starvation. Affected chickens may become blind or lose the use of one or both legs or wings. If a leg is paralyzed, an autopsy would show an enlarged nerve trunk leading to the muscles of the affected leg. Tumors of the ovary are quite common to poultry.

"There is considerable evidence to show that selective breeding produces families of individuals highly resistant to certain tumors, such as those accompanying fowl paralysis. Many breeders have used this

means to reduce losses."

Trichinella "The incidence of trichinosis among the population Infection of the United States which is 15.7 percent, based on In Hogs investigations reported since 1930, has made the problem of detecting trichina-infected pork of vital importance to the meat inspector," according to the North American Veterinarian for May. "Routine microscopic examinations of pork flesh fail in many instances to reveal an existing infestation and for several years investigators have been interested in both the precipitin and the skin tests for the detection of trichina-infested swine.

"In a study made to 'determine the value and accuracy of the intradermal test in detecting trichinous animals in a group of city-owned, garbage-fed hogs,' Lichterman and Kleenan injected 211 hogs intradermally with Trichinella antigen....All of the pigs tested had been fed on uncooked garbage. Twenty-five of the 211 pigs gave positive skin reactions and 186 were negative....Of the 25 pigs diagnosed as positive by the skin test, four gave no evidence of trichina infestation; among the 186 negative, one pig showed trichinosis. This gives an error of less than 3 percent in the intradermal test. The error, moreover, is in the direction of safety, being more likely now and then to diagnose a normal animal as trichinous, than to pass a trichinous pig as normal."

Strawberry "Competition from wild grasses was too strong for Clover strawberry clover, Frank Larson of Idaho decided," acTechnique cording to Capper's Farmer for May. "The first year it was just about smothered out and he told J. M. Thompson of Colorado, from whom he got seed, that it evidently wasn't adapted to

May 3, 1940.

the territory. 'Clip the salt and wire grass about June 1 and see what happens, Mr. Thompson advised. The second year Mr. Larson got 50 pounds of seed and the third year, 188 pounds from 3/4 acre. Strawberry is an alkali and wet-soil tolerant clover. It will develop rapidly on a well-prepared seedbed, but makes slow progress on sod and in shade. However, it will survive in competition with bog and seepy land vegetation."

Livestock Farm "Paradox of Missouri farming is the livestock farm Has No Livestock which has no livestock for sale," according to the College Farmer for April. "Herndale Stock Farms of Sedalia derives all its income from service fees for artificially inseminated animals. Thus to Missouri comes the first private enterprise built around this newest phase of animal husbandry, artificial insemination. Although used now by a few progressive dairy bull rings, artificial breeding is being used for the first time in the beef business. The Angus bull stood for service by Herndale is the first so used. All practices on the farms are of a practical nature, and are designed to bring all the advantages of artificial insemination to the average farm. No research is carried on."

Self Feeding "'Milk from Contented Cows' as a dairy slogan may Pigs Produce soon be matched by 'Pork by Independent Pigs' if research Better Pork by the BAE attracts the attention of the meat packing trade," according to Consumer's Digest for May. "According to the latest yearbook of the Department, a pig that is self fed possesses a serenity of mind that makes him a better pork producer than a pig that is hand fed. The necessity of awaiting man's pleasure before dining appears to depress a pig's mental outlook to a point where it interferes with the assimilation of his food."

India Studies "The question of the utilization of molasses has Making Alcohol been given considerable study in India, and is associated From Molasses with the possible manufacture of power alcohol," says A. P. Som in an article, "Industrial Chemical Developments in India, "appearing in Canadian Chemistry and Process Industries for April. Mr. Som continues: "A committee appointed by the Governments of the United Provinces and Bihar, reporting in 1939, decided that the surplus of molasses coming from the sugar factories, amounting to nearly 200,000 tons, should not be entirely wasted as has been the case. Their report indicated that about 60 gallons of alcohol might be made from a ton of molasses, and the view seems to be that it would be worth while to attempt to utilize this waste product...."

DAILY DIGEST

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Section 1

May 6, 1940.

WALLACE TALKS

"Agriculture Secretary Wallace told 4000 Democratic
TO DEMOCRATIC women at the National Institute of Government here
WOMEN HERE Saturday that the nation must make 'fundamental changes'
to meet post-war trade conditions," according to the
Washington News of May 4. "The course which the world follows after the
war, he said, is bound to depend to a large extent on the decision of the
American people. He defended the Administration's farm program as 'worthy
of universal support' and endorsed the reciprocal trade program as a means
of opening foreign markets to American farm products. He asserted that
both programs must have the 'sympathetic support of a friendly government' to insure their continuance after the 1940 elections."

BROADEN FHA "Broadening of the FHA program to stimulate construcPLAN FOR RURAL tion of new homes in rural communities will be undertaken
HOME BUILDING within a short time, it was announced Sunday by Administrator Stewart McDonald," according to the New York Journal
of Commerce today. "The Housing Administration pointed out that, although
considerable construction under the FHA program already is under way in
such areas, the new campaign will be designed to increase activity. It
added that the program is related, not to housing on farms, but to houses
in rural communities which have a predominantly agricultural economy."

JONES-WHEELER "Although extensive hearings were held on the Jones-BILL MAY STAY Wheeler bill amending the Farm Credit Act, it appears IN COMMITTEE unlikely that the measure will even be reported by the House Agriculture Committee this year," according to the New York Journal of Commerce today. "The drastic proposals for federalization of the entire farm credit system with 40-year loans at three percent have been modified somewhat in the course of the hearings, but the whole subject appears too controversial for action so late in the pre-election session. Criticism of the absorption of the FCA by the USDA would be revived. Although there is strong pressure from the Farmers' Union, counterbalancing opposition has been brought to bear by private lending institutions which would be unable to compete with the low Federal rates."

Income

"Stamp Plan Boosts Egg Use," is the title of an Determines
article by Associate Editor J. H. Florea in a recent issue of Poultry Tribune. Mr. Florea says: "Surveys by government workers and others have indicated that income and the quantity of eggs used are closely related. But would low income families use more eggs, if, in a changing economic world, they suddenly should be placed in a higher income level? It seemed that the best place to find an answer to that question was among the families using the Federal Food Stamp Plan now in operation in several cities. So Poultry Tribune interviewers undertook a special survey in Springfield, Ill., where the stamp plan was put into use October 19, 1939.

"The answer of the 50 families interviewed was an overwhelming
'Yes!' They said they used an average of 1.1 eggs per person each
week or 57 eggs per year before stamps were made available, but now use
an average of 6.2 eggs per person or approximately 323 per person annually.
This is an increase of 560 percent....Eggs have been on the list of surplus foods since the plan was first established....Even though these
families presumably were receiving relief in the form of WPA work or in
other forms before the stamp plan was inaugurated, 25 of the families
said they were not using any eggs before the blue stamps were made
available.

"It is questionable, of course, as to whether these families would buy as many eggs if they were spending money earned in industry and which could be spent as they chose. It must be remembered that there were only about 17 food items which could be bought with the blue stamps. If the value of the stamps had been in cash which could be spent for anything, it is doubtful if eggs would have fared so well. This is indicated in studies and reports of the National Resources Committee of the U. S. Department of Labor, and the Bureau of Home Economics of the U. S. Department of Agriculture...."

British Convert "For some time the research staff of the Imperial Straw Into Chemical Industries of Great Britain has been studying Animal Feed the potentialities of converting straw to animal feed by treatment with caustic soda," according to Feedstuffs for April 27. "After a long series of feeding trials, it is indicated that technical difficulties of conversion have been overcome.

"The process, which is of great importance to a nation on war footing, has as its principle the breaking down of the indigestible cellulose in straw by a weak solution of caustic soda, in other words, a pre-digestive process. Early tests showed that livestock ate the product readily and that it had substantial nutritive value.

"The problem ahead is one of deciding which is the more practical course, to design and make available small plants which can be sold to

the individual farmer for treating his own straw and chaff, or to erect factories in co-operation with the industries interested in the production of animal feedstuffs.

"The second plan would make it possible for sugar beet factories and oil and cake mills to treat the straw centrally and mix it with the fodder they distribute. It is now a question for the government to decide which course will be more satisfactory."

New Produce Construction of a modern produce market to replace

Market For the outmoded wholesale market in Lower Manhattan and

New York reduce by approximately \$8,500,000 a year the high cost

of distributing fresh fruits and vegetables in the

metropolitan area was recommended Saturday in a special report issued

by the Department. The report gives the results of a year's study of

New York produce market conditions by the Bureau of Agricultural

Economics and the Agricultural Marketing Service. The Department

New York produce market conditions by the Bureau of Agricultural Economics and the Agricultural Marketing Service. The Department suggests that the market should be constructed and operated either by a private corporation with public-utility status and properly regulated or by a public corporation or market authority set up by the City of New York and the States of New York and New Jersey, with some Federal participation representing the interests of people who live outside these two States.

A modern market, as recommended in the report, would bring together at one place the various elements in the trade and the supplies to be distributed. This should enable wholesalers, jobbers, and others in the trade to conduct their operations so as to distribute produce more efficiently. Such a market also would make possible the proper operation of price-making forces. A modern market in New York would have an important effect the country over since fruit and vegetable prices in many parts of the country are influenced by New York City prices.

U. S. Cotton

Accumulations of raw cotton and cotton cloth in to Japan

Japan, with no improvement in the export situation for cotton cloth in sight, dims the prospect for any significant sales of American cotton to Japan during the remainder of this season, according to a radiogram to the Office of Foreign Agricultural Relations from the American consul general at Osaka. Wharf stocks reached 400,000 bales at the end of March, about half of which was American, the rest largely Indian. At the same time stocks of cotton cloth were estimated at a billion square yards, equivalent to more than five months' exports at the present rate of shipment. The situation is discussed in the May 4 issue of the Foreign Crops and Markets.

Farm income is increasing seasonally, according to Farm Income. an announcement today by the Bureau of Agricultural Increasing Economics. Higher total for the first six months of this year compared with last is expected on the basis of a higher average of prices. Prospects are for some improvement in domestic demand this summer and fall, but export demand continues restricted by foreign quotas and other trade barriers. Farmers, meanwhile go ahead with a full program of work, putting in new crops, employing 2,500,000 hired hands at wages higher than last year's.

Once more the general index of prices of farm products is close to 100. But the index of prices that farmers pay to produce these products is 123, the Bureau points out. The exchange value of the farm products in terms of other goods remains in the low 80's. Prospect is that the average of prices during the next few months will continue

higher than in 1939.

Mexico Plants Mexico is now planting the cinchona tree, from Cinchona Trees which quinine, the chief drug used in the treatment of To Get Quinine malaria, is extracted, according to Dr. Jose Siurb, Director of Health of Mexico, in a speech to the Pan American health conference, says in a report in the Washington Post of May 3. Thousands of cinchona trees are thriving on a plantation in the state of Chiapas. This fact raises hopes that the Americas may have their own source of quinine, instead of importing it from the East Indies, which might be shut off from trade should the war reach them, he said.

"Importers of fine foodstuffs view with increasing War Cutting apprehension recent events of the war," reports the U. S. Food New York Herald Tribune, May 4. "No one knows which Imports foreign foods available this spring will be on our tables this fall, or if here, at what price. War risk insurance rates

increased this week from 50 to 100 percent.

"When the British Ministry of Economic Warfare disclosed that 135 Danish ships were detained in United Kingdom ports as a result of the German invasion of Denmark, spice importers knew prices on spices would immediately advance, as hundreds of pounds of spices were carried in the bottoms of Denmark's mercantile fleet. Now these boats are out of service and as the war continues, it is becoming increasingly difficult to get freight space which must be used for war materials."

Wheat Seeded With fields at Wolf Point too wet for ordinary By Airplane equipment, Wilbur White engaged Dewey Lowers to seed In Montana 40 acres for him with his plane, according to an article in the Great Falls Tribune, recently. "Seeding by airplane is being tried out in the middle west. To test the coverage, boards covered with molasses are placed on the ground at given intervals. The experimenters tried to hit an average of 27 kernels to the board."

DIGEST

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Section 1

May 7, 1940.

F.D.R. VETOES COTTON CROP INSURANCE BILL

"President Roosevelt Monday vetoed the Bankhead cotton crop insurance bill on the ground that the Government does not yet have sufficient experience required for a self-supporting crop insurance program,"

according to the New York Journal of Commerce for May 7. "In refusing to approve the legislation, the Chief Executive stressed that it 'merely broadens the scope of an experiment not yet on a satisfactory actuarial basis, and fails to supply a fully self-supporting insurance plan for general application to all crops.

"The President pointed out that in his message advocating wheat crop insurance in 1937, he expressed belief that such coverage should be extended to other commodities when 'application of the plan to wheat provided a backlog of experience in applying the principles of crop insurance. !!

FARMERS EXEMPT FROM ANTI-TRUST CRIME PENALTY

. . ! The United States Supreme Court held, on Monday, that there is no requirement in the Constitution that compels the imposition of the same kind of penalties against farmers and stockmen violating the anti-trust

laws that are imposed on other classes of business," according to the

New York Journal of Commerce for today.

"The ruling was handed down by the court in a case involving validity of two Texas anti-trust statutes, one which exempts farmers and stockmen from criminal penalties for violations and the other imposing civil penalties without exemptions."

VIRGINIA FOOD ACT SIMILAR TO U.S. STATUTE

"A Virginia Food Act, similar in wording to the Federal Food, Drug and Cosmetic Act of 1938, has been passed by the legislature and signed by the governor

in Richmond," says Food Field Reporter for April 29.
"It goes into effect June 21. Power to enforce the act is placed with the Commissioner and Board of Agriculture and Immigration. This board is specifically authorized to make resolutions promulgated under the act to conform, insofar as practicable, with the Federal Act.

World Cotton
Use Decreases
4,000,000 Bales
World consumption of cotton totaling approximately 4,000,000 bales has already been lost or is in the process of being lost as a result of the broadening of the war in the Far East and in Europe, not

counting the possible further loss of 1,000,000 bales if the war should spread to Southeastern Europe, according to Alston H. Garside, economist of the New York Cotton Exchange," says the New York Journal of Commerce for today. "To interpret these figures correctly it must be remembered, however, that indicated decreases of 1,200,000 bales in Japan and of 500,000 bales in China were already reflected in world consumption figures for last season. On the other hand, declines in consumption in Central Europe, which have already developed or which are now in the process of developing and the cutting down of the consumption of cotton in the form of goods in England are new developments. They will be reflected only in part in this year's figures, but in full measure next season if the war continues, since only a partial offset is in sight in form of increased consumption elsewhere, notably in the United States."

Embryo Egg Development Watched

"Development of embryo chicks can be watched, and subjected to experimental changes, by means of a technique of 'windowed' eggs developed at the Ohio State University by John W. Price and Ernest V. Fowler," according to

Science Service. "Protection between observation periods is afforded

by caps made from the large ends of other empty eggshells.

"In preparing an egg for 'inspected incubation,' a small hole is made at large end, and the shell carefully broken away with sterilized forceps until it is enlarged sufficiently for working purposes. It is then carefully set upright in an incubator and the eggshell cap slipped over it. From time to time the cap is lifted off, while observations are made.

"Surprisingly little bacterial infection occurs, the two researchers state. They have carried a number of eggs through to normal hatching in the usual period of 21 days."

Beef Cattle "All indications are for an upward trend in Iowa Shows Upward beef cattle production, states Carl A. Oldsen, Field Trend in Iowa Secretary of the Iowa Beef Producer's Association, says Iowa Department of Agriculture News Service. "During the drouth period of 1934 to 1936, many herds were liquidated in a number of states west of the Mississippi River. Beef producers in these sections are now building up their cow herds again, both in quality and numbers. As an additional impetus to the cattle feeding game, Oldsen reminds us that increased industrial activity and employment, which have advanced consumers' buying power, resulted in an increase of seven pounds of meat per capita in the U. S. in 1939."

Seed Flax is

"Seed flax may prove a boon to the oil mills of
Hope for New Georgia and give rise to a new industry — the manufacture
Ga. Industry of cigarette paper — Dr. H. P. Stuckey, director of the
Georgia Experiment Station, said Saturday," according to
the Atlanta Constitution for May 5. "Doctor Stuckey said the experiment
station was awaiting eagerly the results of an extensive experiment with
flax in south Georgia. This experiment has been under way in Georgia
for approximately three years. The engineering experiment station at
Georgia Tech has conducted extensive tests with flax fiber.

"Doctor Stuckey pointed out that the seed flax can be planted in the fall in south Georgia, and that it can withstand the cold of the winter. 'Oil mills in Georgia are not getting enough seed for crushing,' he said. 'They cannot run regularly until other oily seeds can be found.

Peanuts already have been used for this purpose.

"He explained that the fiber of seed flax already is widely used in the manufacture of cirrectte paper "

in the manufacture of cigarette paper."

Only 250 Real

"When Bureau of Biological Survey officials

Longhorn Cattle recently reported that there were only some 250 real

Left in U. S. longhorn cattle in the United States and that of the

original herd of longhorns brought to the Wichita

Mountains National Wildlife Refuge. Oklassin 1927, only one survivor

Mountains National Wildlife Refuge, Okla., in 1927, only one survivor remained, they did not realize that they were writing the obituary to a

cow," according to Science News Letter.

"'Old Red,' a gaunt, feeble cow more than 25 years old, the last survivor of the original longhorn herd, died from old age and freezing temperatures while the Bureau's longhorn report was being circulated. Reared in the mesquitecatsclaw country near Edinburg, Texas, 'Old Red' joined the famous Wichita herd.

"She produced 8 longhorn calves in 12 years. Among her offspring are several of the fine steers in the present herd of 146 longhorns."

Food Business

"A sweeping inquiry into every phase of the food
Probe Next on
business, from the butcher and the baker to the huge
Anti-Trust Tab

packing companies and the grocery chains, is the next
move on the agenda of the Anti-trust Division of the

U. S. Attorney General's office," according to the New York Times today.

"The investigation will be conducted in Chicago and New York by
Federal grand juries. One thousand witnesses are expected to be subpoensed
to appear before the grand jury in Chicago. The injury will take months,
perhaps a year. The government will charge, it is reported, that food
prices are too high because of alleged monopolistic practices in the
industry. Chicago was described as the scene of particularly gross
'economic price extortions.'"

· Mar Line on the Perkins Urges Wage-Hour Act For Farm Labor

"Secretary of Labor Perkins stirred up a hornet's nest Monday by recommending that the Social Security Act and the Wage-Hour Act be extended to cover workers on industrialized farms, that being exactly what the

operators of those farms opposed," says the New York Times for May 7. "Miss Perkins set forth her ideas in testimony before the La Follette Civil Liberties Committee of the Senate, which is looking into the status of migrant farm workers with the view of asking Congress to take some action to better their lot. Not only did she contend that the migrants who pick up a precarious living by wage or piece labor on factorized farms should get the benefit of Federal social legislation, but she held that the States had been lax in extending to them the protection of workmen's compensation laws, accident prevention laws and child labor laws."

Plant Industry Potato Seed

"Producing true seed from a potato plant is the Produces Better chief means of breeding new varieties," according to Science Digest for June. "With potatoes each seed represents a potential new variety. Unfortunately,

the potato plant seldom produces seed in the field outside of a few favored areas -- chiefly northern portions of Minnesota, Wisconsin,

Maine, and the Colorado highlands.

Three years ago Dr. H. A. Jones, in charge of notato work in the Federal Bureau of Plant Industry, set out to make a greenhouse 'climate' similar to that of northern Maine and upland Colorado. At the United States Horticultural Station, Beltsville, Md., and at the Potato Field Station, Greeley, Colo., the artificial 'climate' has produced larger and more uniform seed crops than under good field conditions similar to those existing in Maine and Colorado."

Egg-Turner in "A new automatic egg-turning device in experi-Incubator Saves mental incubators of the USDA has decreased the Chicks in Shell death of chicks within the egg shell," according to Science Service. "The turning mechanism operates

about every fifteen minutes, the same interval of time at which a hen, on a nest, moves and turns the eggs. The hatch of fertile eggs has been increased seven percent by the method."

Higher Prices For U. S. 1940 Wool Clip

"Wool growers, now gathering their 1940 crop, will realize sharply higher prices for their clip than they did a year ago," according to the New York Herald-Tribune of May 7. "Improved consumer

demand, a small domestic carryover into the new season and the warboosted foreign markets have helped lift U. S. wool prices around 25 to 33 percent over last year, market statistics indicate."

DAILY DIGEST

Prepared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXXVII. No. 28

Section 1

May 8. 1940.

FOOD COMBINE PROSECUTION HINGES ON MONEY

"Thurman Arnold, who has the Justice Department's anti-trust division busy on several major fronts, said Tuesday that he would like also to attack factors which keep food prices high in large cities," says the Washington Post of May 8. "The question of investigating and prosecuting alleged abuses in the food distribution industry, Arnold said, is one of men and money. He made his statement in response to an inquiry about re-

ported plans to begin an investigation in the Chicago area..... He said that the department had long been interested in 'comprehensive prosecution' in that field. However, he added, the division already was jammed with work and had been given no additional money in the 1941 appropriation, so there was 'a grave problem of whether there is sufficient personnel to undertake such a prosecution on a scale extensive enough to do any good. III

HOUSE COMMITTEE FAVORS EXISTING SUGAR LAW

"The House Agriculture Committee Tuesday favorably reported, without change, the Cumnings resolution continuing the existing sugar law until the end of 1941," says the New York Journal of Commerce for May 8. "If-

forts made during the executive session of the committee to amend the resolution to reinstate quotas on direct consumption sugar from Hawaii and Puerto Rico, which expired March 1, were defeated by a vote of 13-10."

"More than 500,000 farms in the country cannot 500,000 FARMS FAIL TO SUPPORT make a living for the 2,500,000 persons working on 2,500,000 PEOPLE them, Dr. Carl C. Taylor of the Agriculture Department told the Senate Civil Liberties Committee

Tuesday as it continued its inquiry into the problems of migratory farm workers," says the Washington Times-Herald of May 8. "He said that much land now being farmed never should have been converted from timberland, and that some should never even have been settled. He said that there are 5,000,000 farm laborers who 'occupy the lowest rung in the agricultural ladder.' Of this number, he said that fifty percent are seasonal laborers and about 300,000 are migrants."

Sanitation Aids
In Control of
Streptococci

"The efficacy of sanitary measures in controlling the spread of streptococci was observed in a study of bovine mastitis in the large dairy herd assembled at the New York World's Fair in the

Borden exhibit," according to Hoard's Dairyman for May 10. "The herd was composed of about 150 pure-bred cows, selected from the herds of leading breeders in various parts of the United States and Canada..... Each cow was subjected to tests for tuberculosis and Bang's disease before it was accepted. An attempt was made also to reduce the

presence of mastitis to a minimum....

"In spite of the attempt to obtain cows with udders free from streptococci, some animals were found to be harboring this type of infection when first examined upon arrival in the herd. Although about 150 cows were maintained in the herd at all times, 172 animals were examined one or more times. Of the total number, 36 cows were found to have streptococci of different kinds in one or more quarters on the first examination. This is a percentage of 20.9, which is similar to that found in the average dairy herd....During the sixmonth period of observation, ten of the healthy cows (5.8 percent of the total number) became permanently infected with various streptococci. When these figures are compared with results compiled recently in another herd where relatively few sanitary precautions were taken, this point becomes significant: There were 131 milking cows in the latter herd and in the last year 28, or 21.3 percent, developed streptococcic mastitis in one or more quarters....

"The results which have been found in this work would appear to confirm the belief that proper use of sanitary measures is of value

in the control of mastitis streptococci."

The material in the above report was compiled by W. T. Miller, C. W. Bean and J. O Heishman, Veterinarians in the U. S. Bureau of Animal Industry.

Peaches On Upward Trend In U.S.-Gourley According to the American Fruit Grower for May: "Dr. J. H. Gourley, head of the Department of Horticulture, Ohio State University, and president of the Ohio State Horticultural Society, made the

following observations at the last Ohio state society meeting: 'There has been an upward trend in peach production in the U. S. in recent years, and it is likely to continue for some time. South Carolina is conspicuous in its expansion in peach plantings. In 1920 there were only 26 bearing commercial orchards in that State. Half a million trees were planted in 1921, and in succeeding years the plantings have been very extensive. South Carolina now has at least three million trees, one-half of which have not reached bearing age. It is believed that the production of fruit in the near future will be 10,000 or 12,-000 cars. Most of these orchards have been planted on the contour, and Elberta is the prevailing variety.'"

Bermuda Grass
Finds Favor
With Stockmen

"After thirty years, Bermuda grass is about to come into its own," says Clarence Roberts in the Farmer-Stockman for May 1. "Bermuda was feared and hated by all crop farmers when it first appeared in

the south. The man without livestock still has no love for it. But with so much of our soil washed away and with a shift in interest from row crops to livestock, land owners are planting Bermuda as fast as they can get it. In all the soil conservation districts the CCC boys and the WPA labor groups have more requests for Bermuda planting than

they can get to.

"....The Texas Experiment Station recently made chemical analyses of 1,432 samples of various grasses growing throughout the east Texas timber country. Of all the grasses, Bermuda showed the highest protein content in the spring, about eight percent. Likewise, Bermuda ranked at the top in content in both phosphoric acid and lime, along with Johnson grass. The relatively high content of Bermuda grass in phosphorous and lime should come as welcome news to farmers throughout those parts of the country where livestock suffers from 'mineral deficiency,' that is, from a lack of phosphorous and lime in the native pasture grasses."

Corn in Contour Rows Yields 13% More in Tests

"Crooked farming produced a 13 percent greater corn yield than did straight up-and-down-slope planting in six test plots conducted last year by E. W. Bruggenan," says the Illinois Agricultural

Association Record for May. "In the tests, run in cooperation with the Soil Conservation Service and the University of Illinois, Bruggeman used open-pollinated corn on a five percent slope. He found that: (1) On two crops which had been lined and clovered the two preceding years, corn planted on the contour yielded 69.3 bushels an acre, while corn planted in rows up and down the slope yielded 61.5 bushels. (2) On two plots that received fifteen tons of manure an acre, contoured corn yielded 72.5 bushels an acre, compared with 63.9 bushels up and down the slope. (3) On the last two crops, receiving no treatment, the crooked rows yielded 39.5 bushels an acre, while the up-and-down corn yielded 34.4 bushels."

World's Record Acreage Yield Of Sugar Beets "A world's record in the acreage production of sugar beets was announced by government officials after they measured the yield of acres operated by D. Bianco and A. Soria of Gonzales, California,"

says the Sugar Journal for May. "Government tabulations showed a yield of 161.21 100 pound bags of sugar per acre, or an acre average of 45.03 tons. The 23.638 acres of sugar beets in the Salinas district....produces an average of 21.88 tons per acre, one of the largest yields ever recorded."

Largest Tobacco Station An article, "Tobacco Production Benefits by Research," by Louis H. Wilson of the North Carolina Department of Agriculture, appearing in Better Crops With Plant Food (April) says in part: "North Carolina now boasts the

largest tobacco research station in the Nation. Strangely, but wisely, a handful of pioneering agricultural leaders twenty-seven years ago selected Granville County's Poor Farm upon which to conduct research on the State's No. 1 cash crop, tobacco, a crop that last year brought Tar Heel growers in excess of \$115,000,000. Today the Oxford Tobacco Experiment Station, located one mile south-west of Oxford, is composed of a 250-acre battle ground where State and Federal agronomists and other research specialists wage war upon nutritional problems, tobacco pests, and diseases that have taken millions of dollars from the pocketbooks of the farmers.

"The program of the test farm has been so widespread and far-reaching that it is not uncommon to find five or six representatives of foreign governments at the station at one time. During one day recently, experts from England, Australia, China, Argentina, Persia and India were directed to the farm by the USDA for information."

Additional
Soil Testing
For Illinois

An editorial in Better Crops With Plant Food for April says: "The increasing interest of farmers and home-owners to know more about their farm, garden and lawn soils in terms of productive fertility is in-

fluencing more and more states to establish adequate services to promptly and effectively furnish this information. Recently, announcement of a new service set up on a fee basis in the department of agronomy of the Illinois College of Agriculture was made by Dr. W. L. Burlison, head of the department.

"From this announcement, it should not be implied that heretofore Illinois has done no soil testing. Much has been done through county farm advisers, county farm bureaus and the extension service of the agricultural college largely on an educational basis. Despite the volume of this testing, it has fallen far short of meeting the need and demand for such service, according to Doctor Burlison. It is not intended that the new service will in any way curtail or replace the testing service now being given by county farm advisers and others. It is designed merely to care for overflow requests...."

Cut By 167,000 Acres - Journal

"Intentions of growers to plant cotton this spring in this country show a reduction according to crop correspondents of the New York Journal of Commerce from the area indicated a month ago," says the Journal of

today. "The present indicated cotton acreage is 24,647,000 acres, representing a reduction of 167,000 acres from the 24,814,000 indicated as of April 1 and of 185,000 acres or 0.7 percent from the 24,832,000 acres which the Government reported was in cultivation on July 1, 1939. On March 1 correspondents indicated an acreage of 24,803,000 acres and on February 8 reported 24,618,000."

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Section 1

May 9, 1940.

EXPORT SUBSIDY FOR CORN BEING DISCUSSED

"Negotiations looking to disposal of surplus domestic corn stocks abroad, particularly in Great Britain, are expected to be completed by the USDA within the next few days, it was learned in official

circles Wednesday night," says the New York Journal of Commerce today. "So far no details are available concerning the disposal plan although it is thought that it may follow the general lines of the export subsidy program for wheat and cotton. There also is strong possibility that it may take in only Government loan stocks of the grain held by the CCC. It is estimated that the CCC now holds close to 500,000,000 bushels of corn under loan; on some the Government holds title."

BANKERS DENY CHARGES BY WALLACE

"Denying charges by Secretary Wallace that the American Banker's Association had opposed provisions of the Jones-Wheeler bill to reorganize the Federal Land Bank System, as part of a campaign to prevent

lower interest to farmers, a statement issued Wednesday by the association in behalf of its president. Robert M. Hanes, asserted that the bill would drive all lenders from the farm credit field except the USDA," says the New York Times of May 9.

"'Ostensibly the purpose of the bill is the reorganization of the Federal Land Bank System, Mr. Hanes' statement said. 'Actually its provisions would destroy the existing cooperative agricultural credit system, destroy the Federal Land Bank and place the farmer-borrower at the mercy of a single bureaucratic credit agency. "

FSA TO BUILD \$500 HOMES

"Construction of 200 to 300 rural homes at the cost of about \$500 each, to house dispossessed tenants FOR MO. CROPPERS and sharecroppers in Southeastern Missouri is to be started soon by the FSA, that agency announced

Wednesday," according to the New York Times today. "One contractor already has submitted a bid to turn out these homes in five counties at \$499 each, which is the lowest price for any houses ever built with FSA financing FSA loans for these dwellings will be made to families in the area which are now homeless, living doubled up with other families, or in shacks thrown together for shelter. It is hoped that a minimum of thirty-five loans can be cleared weekly until all the cottages, perhaps about 300, are contracted for in the so-called 'Missouri bootheel' area. Thirty tracts have been acquired for the program."

Midwest Ranges
Thinning, Survey
of 1939 Shows

"Deterioration of Midwestern Ranges" is the title of an article by J. E. Weaver, University of Nebraska, and F. W. Albertson, Kansas State College, appearing in the April issue of Ecology. The

authors say: "A survey was made in the summer of 1939 of 88 ranges selected as representative of grazing lands in western Kansas and Nebraska, portions of southwestern South Dakota, eastern Wyoming and Colorado, and the Panhandle of Oklahoma. Severe drought, overgrazing, burial by dust, and damage by grasshoppers have resulted in greatly reducing the cover in range grasses.

"This portion of the mixed prairie has almost completely lost its upper story of mid grasses on the non-sandy lands. The short grasses and sedges have undergone a process of thinning which has resulted in

only the most vigorous plants remaining alive....

"Extremely poor conditions varied with the better ones throughout. The bare soil during periods with moisture is populated with annual weeds, chief of which is Russian thistle. In many places it is only with difficulty that one can distinguish denuded pastures from weedy, tilled land. Cacti have increased greatly almost everywhere and constitute a serious problem. Because of the low precipitation of 1939, most ranges have lost any gains made during favorable periods since 1934, and further reduction in vegetation seems certain if the winter also is dry."

Hythergraph
Used as Index
For Vegetation

Ecology for April carries a discussion by Arthur D. Smith, Utah State Agricultural College, of the application of a climatological diagram, the hythergraph, to the distribution of natural vegetation

types. Mr. Smith says in summary: "Though the hythergraph frequently has been used to interpret climatic conditions, and particularly in reference to suitable environmental conditions for animals, it has not been used as an index in the determination of natural vegetation types. Weather data were collected for eight vegetation types, the southern desert shrub, the sagebrush, the boreal forest, the short and tall grass areas of North America, the Russian steppe, and the Pampas region of Argentina.

The resulting figures reveal that there is a definite pattern exhibited for each vegetation type studied. This is expressed in the shape of the figure or the clockwise or counter-clockwise direction exhibited by following the successive months of the year. Were climatic data to be secured from stations located with a view to interpreting as nearly as possible the conditions to which vegetation is subject, it is believed that the diagrams shown would delinit broad

natural vegetation units."

Prepotency of Tank Cultures
Of Corn Hybrids

Reporting on new research with corn hybrids, G. G. Williams, Director-Emeritus of the Ohio Agricultural Experiment Station and G. H. Stringfield, Head of corn breeding experiments program in Ohio

for the Experiment Station and the U. S. Bureau of Plant Industry make the following comments in the Ohio State Grange Monthly for May.

"Tank cultures in which corn is grown either directly in nutrient solutions or in gravel and irrigated with such solutions are being used at the Experiment Station in investigating corn nutrition. Physiological studies in these tanks include determinations of the differences in the mineral accumulations by different hybrids under normal and deficiency conditions and the effect of these differences on the resistance of certain strains to such diseases and insect pests as stalk rot and the European corn borer. Leads obtained under the highly controlled conditions in these tanks are further investigated on a larger scale under field conditions.

"A relatively newand already productive field of research is in the study of differences among corn strains in susceptibility to insect pests. It has been rather surprising to find decided differences among strains for susceptibility to practically every insect pest studied. A series of experiments are under way to learn more about the dominance, sometimes popularly called 'prepotency,' of such important characteristics as resistance to lodging, disease resistance, seasonal requirement, ear height, and productive capacity.

"Along with these specialized researches is the continual testing of new and old strains, comparing their ability to produce high yields of

sound corn under field conditions."

Science Fights

Jap Beetle With

Tiny Bacteria

"Entomologists feel that they have discovered a real enemy of the Japanese beetle," says the Pennsylvania Farmer for May 4. "It is a bacterial organism so small and prolific that in a single infected grub

it may develop from three to five million fold. It kills the grub before the grub emerges from the ground to destroy vegetation and propagate.

"At the University of Maryland four men have been busy during the past winter developing these bacteria on a large scale. Their procedure is as follows: Thousands of grubs have been kept in cold storage until time to be treated. When ready, an injection of the bacteria is made into the grub, which is then placed in a box planted with clover seeds. The temperature is kept at 85 degrees for eight to ten days, during which time the grub feeds and the bacteria develop within it. The grub gets sick, and....is ground up and dried. The dust will be broadcast over badly infested areas in the state with the hope that the infection in the soil will contact grubs, which will continue to propagate the beetle's enemy."

Retired Land all of the 8,500,000 acres of land in the 141 land

To Public utilization projects established by the Government since 1933 will be opened to free public use for hunting, fishing and trapping. Dr. Hugh H. Bennett, Chief of the SCS said that this policy of recreational use of ponds, streams and forests in land utilization projects was formed in answer to numerous requests from sportsmen in areas where the projects are located. All hunting, fishing, and trapping, however, will be governed by existing State and Federal game laws. In the past each area has formed its own policy on whether to permit use by sportsmen.

Youth Trapped on Barren Farms Says Taeuber "A panel of farm population experts Wednesday told the Senate Civil Liberties Committee that thousands of youths coming of age each year on the country's most barren farmland are trapped in a

vicious circle in their efforts to find work," says the Washington Post for May 9. "In these poor agriculture areas, where the soil cannot support its present population, low income has resulted in inadequate educational opportunities, Conrad Taeuber, of the BAE, explained.....

"Since 1930....the drift to the city has slackened, leaving the country today with the highest farm population in its history—32,250,000 persons....Mr. Taeuber estimated that there are approximately 2,000,000 more persons aged 15-29 on farms today than there would have been if 1930-40 migration had matched the rate of the previous decade.... Even with an increase over the urban migration rate of 1930-40, farm population is likely to grow by at least 5,000,000 within the next twenty years, he stated."

Cotton Under

The Department announced yesterday that from January 30, 1940 through April 30, sales and deliveries of cotton products, under the cotton export program, amounted to the equivalent of 63,000 bales. This brought to 6,278,000 bales the total sales and deliveries under the export program since its inception on July 27, 1939.

"Reviews of the first week of the food-stamp dis
Stamps Fold tribution in Baltimore revealed that \$30,102 worth of in Baltimore stamps had been sold, Irving T. Quinn, local director, reported Wednesday," according to the Baltimore Sun of May 9. "Although this indicated that the sales had dropped far off the \$8,800 peak reached the second day of sales, Mr. Quinn said he still was very much pleased with the results."

DAILY DIGEST

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Vol. LXXVII, No. 30

Section 1

May 10, 1940.

HOUSE VOTES \$224, 321,188 FARM BENEFITS

"The House voted \$224,321,188 in unbudgeted farm benefits Thursday and thereby seemed to doom hopes for any substantial economies at this session" says the New York Times of May 10. "A proviso raising the basis for payments from 75 to 100 percent of parity healed a split and solidified the farm bloc which forced through an amendment, already approved by the Senate, providing \$212,000,000 in farm benefit payments. The vote was

207 to 176.

"Next the House, 191 to 172, refused to trim a Senate appropriation for \$85,000,000 for surplus crop disposal under the food stamp plan to the budget-requested figure of \$72,678,812. Then by a voice vote it approved the \$85,000,000 item. With no provision in the budget for the \$212,000,000 in parity payments and with the budget figure on surplus crop disposal exceeded by \$12,321,188, economy was again set back, this time by \$224,321,188 in a day, and the Agriculture Bill for 1940-41 was increased to about the billion-dollar mark."

U. S. ACCEPTS "The sale of 20,000,000 bushels of surplus American CORN BIDS ON corn to the United Kingdom was announced Thursday by the 20,000,000 BU. USDA under a newly inaugurated export subsidy program," according to the Washington Post of May 10. "The corn will be shipped by private exporters. It will be taken from Governmentowned stocks which total about 85,000,000 bushels. Officials withheld other details of the transaction until all arrangements for shipping were completed... Inasmuch as American Corn now is being quoted in foreign markets from 20 to 25 cents a bushel above Argentine and other competitive grain, little of the feed crop has been moving abroad. The Government price-supporting loan program has held the American price above world levels."

CANADIAN SPRING WHEAT AREA MAY

"A six percent increase in the Canadian spring wheat area for 1940 is indicated, if farmers' intentions at April 30 are carried out, a Canadian government crop report issued Thursday stated, " according to the N. Y.

Journal of Commerce for May 10. "... The total wheat acreage for Canada is reported at 28,245,000 acres as compared with 25,756,500 acres in 1939." Section 2

'Decadence of Insects Has Set In'--Brues

In an article, "Is Ours the 'Age of Insects'?", appearing in Scientific Monthly for May, Prof. Charles T. Brues, of Harvard University, says:

"... Entomologists have proclaimed recently that we are now really in the 'Age of Insects,' and that man, already a back number, must stage a fight for his life with the insects.... There is, of course, a modicum of truth in all this. From a purely anthropocentric view-point it is perfectly logical to regard the menacing spread and increase of a few highly destructive insects as an 'Age of Insects.' ... How may we recognize the heyday of the insects or of any other group of animals? For an answer to this question we must rely upon an examination of their characteristics at the present time in comparison with the meager information so far accumulated concerning their past, with perhaps some dubious predictions as to what Nature may hold in store for them in the future ...

"The revelant sources of information may be grouped roughly as follows in several catagories, each in sequence with reference to time: Abundance; extension or reduction of range; diversity; speciation; specialization in structure, development and behavior. Size of individuals...With regard to these sources of information the insects may be examined with some degree of exactness during at least a part of their history. There are naturally wide and serious gaps in the sequence, but I believe that we now have in sufficient data to warrant a rather definite statement that insects as a whole have reached the peak of their development and that their period of decadence has already set in...."

Tree Windbreaks Show Survival Averaging 65%

"Tree and shrub windbreaks planted under the Prairie States Forestry Project during 1939 show survivals averaging sixty-six percent," according to American Forestry for May. "This improvement over the previous year is

attributed to better care by cooperating farmers and to improvements in the technic of producing, handling and planting the trees. Most easily established of all trees in the windbreaks were green ash, honey locust, American elm, mulberry, Chinese elm, lemonade sumac, soapberry and buckthorn. Already these windbreaks are the homes of increased numbers of insect-eating birds. Recent Forestry Service studies reveal that throughout the 11,000 miles of field windbreaks notable increases have taken place among pheasants, quail, mourning doves and prairie chickens, as well as among orioles, scissor bills and meadow larks."

Am. Scientific Here Today

The Eighth American Scientific Congress opens its Congress Opens meetings in Washington today at the Pan American Union Building. According to the official bulletin, the congress has two cardinal purposes:

"To advance scientific thought and achievement: to assist in celebrating the fiftieth anniversary of the founding of the Pan American Union."

Disease Control Aids Southern Livestock Plan

"Changes in southern agriculture in recent years have attracted nationwide interest," says Dr. John R. Mohler, Cheif, Bureau of Animal Industry, in an article, "BAI Contributions to Southern Stock Raising" appearing in the May issue of the Journal of the American Veterinary Medical Associ-

ation. Dr. Mohler continues:

"Amid the varying views and recommendations intended to guide such development along the most beneficial lines, the central current of thought has been diversification with special emphasis on livestock... Throughout the trend of changes here outlined, the federal bureau of animal industry has sought to be of assistance through research findings and their practical application. One of the early obvious needs was a better control of animal parasites and diseases...

"The story of veterinary conquest over the cattle-fever tick (Boophilus annulatus) has become so familiar as to need no detailed elucidation at this time... Tick eradication prepared the way for other services, such as the suppression of bovine tuberculosis and, still more recently, the campaign against Bang's disease ... A further significant development is that officers of banks and credit organizations, in recent years, have looked upon livestock with increasing favor as security for loans ...

"Further tangible evidence of assistance...has been the establishment of the animal-disease-research laboratory at Auburn, Ala. Although still in its infancy, this station already has begun several lines of investigation to advance scientific knowledge still further, on subjects on which southern stockmen have requested aid ... "

Parafoulbrood Limited to Southeast

James I. Hambleton, Senior Agriculturist, of the Bureau of Entomology and Plant Quarantine, writes on "The Prevalence of Parafoulbrood" in a recent issue of Frontier. He says that "considerable confusion seems to exist as to the

prevalence of parafoulbrood in the U.S. Some beekeepers and even some inspectors refer to parafoulbrood with the utmost familiarity as though it were of common occurrence; but it is probably safe to assume that outside of certain limited areas in the Southeastern part of the U.S. few persons have seen parafoulbrood to recognize it. In some quarters the idea prevails that parafoulbrood is widely scattered in the Northern states, but so far as records in the Division of Bee Culture are concerned, only one sample of parafoulbrood has been received from a Northern state, and that was received through the mails at Beltsville, Md., during September, 1939.

"While it is true that the records in the Bee Culture Laboratory cannot be used as an index of the prevalence of the disease, yet with the receipt of about 1,000 samples a year, it would be strange that more samples of parafoulbrood were not received from the North were this disease present to any extent."

Farm Labor

Migrants in problem is confined to those Arkies and Okies which have piled up in the rusal slums of California was exploded Thursday by the testimony presented to the La Follette

Civil Liberties Committee of the Senate," according to the N. Y. Times of May 10. "Great groups of migrants are found in practically all of the nation's important agricultural areas, the committee was told. They are an important factor in the farm economy of areas that are forty-five minutes from New York City. The whole Eastern seaboard relies on them to some extent to meet its seasonal farm labor demands, it was testified, and such established farm states as Indiana, Illinois, Ohio, Michigan and Wisconsin have their large shares of motorized job seekers.

"This broad picture of migrancy was described by William T. Ham, who is in charge of labor and tenancy studies for the USDA. Explaining that there are vast fluctuations yearly in the number of migrants who appear in the various farm communities, and that there never had been any complete census—taking among them, Mr. Ham offered an estimate that altogether there are in the nation 500,000 to 800,000 individuals who can be

classified as migratory farm workers."

Grocers Want
Curb on OffShore Sugar

"A resolution of importance to domestic sugar refiners throughout the country was adopted by the U. S. Wholesale Grocers' Association, Inc., at its concluding session in Savannah Thursday," according to the N. Y.

Herald-Tribune of May 10. "The motion pointed out that the Federal Sugar Act of 1937, limiting the in-flow of 'foreign or off-shore refined sugar' expires this year, and asked Congress to enact new legislation to 'provide for a similar limitation.'...

"The food stamp plan was indorsed as being 'proven uniformly successful' and Congress was urged to make adequate appropriations for its operation and extension, to which the association pledged its support."

Revised U. S. standards for potatoes, effective May

Standards

15, 1940, provide slightly more liberal application of
tolerances for defects in occasional packages provided the
average for any lot does not exceed present tolerances,
the Agricultural Marketing Service announces. There is no change in the
grade or size requirements or tolerances for size and defects. (Press
Release.)

200,000 Pounds
Tobacco Sold
Tuesday in the opening of the 1940 marketing season at auctions in Upper Marlboro, Hughesville, La Platta and Waldorf, the United States Agricultural Marketing
Service reported Wednesday." says the Washington Post of May 9.

DIGEST

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May 13, 1940.

CORN PRICES "Corn prices advanced sharply in the week to new GAIN ON high levels since Sept. 1937, on buying induced by the EXPORT SUBSIDY announcement of the government subsidy and on the broadening of the war in Europe," according to the New York Times of May 13th. "Sales of 20,000,000 bushels of corn taken in by the government on defaulted loans by farmers for the 1938 program are reported with the United Kingdom the buyer."

U.S. FARMERS HARD-HIT BY INVASION

"American farmers may be the first economic casualties of the German invasion of the Netherlands and Belgium, the Department of Agriculture indicated in a statement yesterday," according to the Washington Post of May 12.

"The Low Countries normally took about 10 percent of Thited States agricultural exports to all countries, the figures showed.

"Since the start of war in September, these countries had become relatively even more important as an outlet for the products of American farms, taking 45 percent of our wheat exports, 41 percent of western fluecured tobacco exports, 23 percent of American raisin exports and over 60 percent of soybeans.

"The Netherlands and Belgium were the fourth and sixth best customers, respectively, for American farm products, the Dutch taking \$39,000,000 worth in 1939 and the Belgians about \$27,000,000 worth."

FARM PLAN FOR

"Secretary of Agriculture Henry Wallace and Gifford AMERICAS URGED Pinchot former Republican Governor of Pennsylvania proposed similar plans before the eighth American Scientific

Congress, to make the peoples of this hemisphere more selfsufficient," says the Washington Post, May 12. "The address of Secretary Wallace was read in his absence by E. N. Bressman, scientific adviser. In it he pointed out that if South and Central America were able to produce tea, cocoa, rubber, chinchona (quinine), tropical hardwoods and other essentials now imported from the East, inter-American trade relations would be enormously improved. 'It is our sincere belief,' the Cabinet member said in his address, 'that the establishment of an Institute of Tropical Agriculture is vital if Western Hemisphere agriculture is to develop as it should. In the same spirit, Pinchot urged the founding of an all-American conservation commission as 'a plan for permanent peace through international cooperation. "

Farm Population

Mobility in S.

Great Plains

Olaf F. Larson, of the BAE, is author of an article, "Farm Population Mobility in the Southern Great Plains," appearing in the May issue of Social Forces. The article says: "....The present dis-

cussion is concerned with population changes in an area all of whose counties were 'officially designated' drought counties in 1934 and most of which were in the 'official' drought list of 1936....Neither frequent drought nor population instability are new phenomena in the history of the Southern Great Plains Data supplied from land use surveys made by the Resettlement Administration, which covered every farm operator in 40 'Dust Bowl' counties enable certain comparisons with 1935 and 1930 census information. These 40 counties are all located in the area where Colorado, Kansas, Oklahoma, Texas and New Mexico join together; they have no irrigated farms of any relative importance and consequently are of the type in the Southern Great Plains most likely to feel the full impact of the recent droughts. These counties contained 32,342 farms in 1935 but the Land Use Survey, made during 1936, enumerated only 26,006 operating units of which only 20,111 were lived on by the operator. The 1930 farm population of these counties was 125,367 but the 1935 census showed a decrease of 2.8 percent to 121,878....

"These 40 counties are the 'core' group of a larger area in which one out of every four houses is abandoned and most of the abandonment has taken place in recent years; in some counties the percentage of

abandonment passes 40 percent...."

Soils and Their Water Holding Capacities

"Tests by 10 investigators in 8 states on 20 different classes of soil show that the amount of water absorbed by a soil when in need of irrigation varies from one-half inch of water per foot of sandy

soil to 2 and one-fourth inches in a clay loam soil," according to

New Agriculture.

"As an average of nearly 3,000 trials, explains Floyd Brown, specialist in irrigation practice for Colorado State College Extension Service, it was found that the upper 6 feet of a well drained silt loam soil retained a little more than 1 inch of water for each foot of soil 24 hours after irrigation. This soil was designated as moderately

compact with a tendency to puddle....

on most soils show that about one half inch of water in each foot of soil must be available to keep crops from wilting. If the soil cannot hold more than one and one-half inches of available water in each foot, then clearly it is desirable to add only one inch of water to each foot of soil that needs it. Storage of water in soil during the time there is a surplus can be called efficient use of water, provided an attempt is not made to store more water than the soil will hold."

Farm Youth
Lack Farms
And Desire

College of Washington, in the May number of Social
Forces. Mr. Landis says: ".....A surprising propor-

tion of farm youth today have no intention of farming, and probably a great majority would prefer some other vocation if given a choice.

"A study of occupational preferences of high school pupils in Missouri shows that only about twenty-two percent of the farm boys wish to farm....Again, many who are actually engaged in farming feel thwarted and unhappy. A study of Oregon youth, ages sixteen to twenty-five, made in 1936, shows that 72.6 percent of a group of 124 rural young men out of school were farming, but only forty-six percent pre-

ferred farming as a vocation....

"Equal difficulty lies in the fact that many farm youth want to farm and are better fitted for farming than for any other occupation, but being unable to do so, turn to urban work as an alternative. Each year between 150,000 and 200,000 farm young people reach the age of eighteen with no prospect of farming because no farms are available. For example, in 1920, 160,000 farmers died or passed the age of 65; and during the same year, 337,000 farm boys reached the age of eighteen, a surplus of 177,000. Likewise, in 1930, the surplus of farm youth coming to maturity was 201,000. Since the number of farm youth reaching maturity will increase up into the 1940's, and the number of acres on farms will likely decrease, due to erosion and farm abandonment, the situation promises to be no better...."

Married Farm
Laborer Stays
Longer on Land

"Married farm hands comprise one-fourth of the Iowa farm labor group, according to a recent survey," made by Allan Beegle for the Iowa Agriculturist. "From the 40 representative townships included there

were 5,000 families living in the open country; 649 of these were classed as farm laborers. This group is of significance because it is

quite permanently associated with agriculture.

"There are more than three times as many married farm laborers between 25 and 34 than in any other age group....We find that the married farm laborer is older and tends to stay longer in agriculture because the ties of the general farm laborer are not as strong, and he finds it much easier to join other occupations....The range covered by Iowa married farm laborers seldom extends beyond the adjoining counties.

"Most of the married farm laborers have lived continuously in the country. Significant progress in tenure status was made by this group during the depression. A most striking fact is that those who were farm laborers in 1929 tended to advance in agricultural occupations during the seven years that followed. A large number remained farm tenants, while a few succeeded in becoming farm owners or managers."

'Hormone' Sprays
Delay Apple
Dropping

"Most apple growers have heard or read something about the 'hormone' sprays recently found by the Bureau of Plant Industry of the USDA to be effective in preventing the pre-harvest drop of apples. Judging from

the large number of requests received by the Department for specific information, most growers would like to know more about this work," says F. E. Gardner of the Bureau of Plant Industry in the American Fruit Grower for May.

"...It should be pointed out that the work with hormone sprays to control apple drop is quite recent, having been used experimentally only during the past season, and although the experiments have been rather extensive, it is obviously impossible to find out in one season all that can or should be known regarding a proposed new orchard procedure...

"The most remarkable feature of these sprays in controlling the preharvest drop is the minute amount required. Concentrations on the spray of .0005 to .001 percent of the chemical result in effective control of dropping...The only effect (on the fruit) appears to be that of delaying its dropping, thereby allowing for better color development. The greatly improved color attained by many varieties by hanging a little longer than normally is an even more important advantage of the sprays than the fact that the number of grounded apples is reduced...

"The response of apple varieties to these sprays naturally raises the question as to whether the procedure might not also be as useful with a great variety of crops...At present, there is no answer to this question, although within the next few years the applicability of various growth substances to the dropping problems of many crops no doubt will be the object of considerable investigation."

Postage Stamp

"The glue on the backs of stamps is made of starch

Glue From Yam

Starch Seen

Dallas Morning News, May 6. "Recent tests have shown, however, that dextrin made from sweet potato starch was satis-

factory for postage stamp glue as well as for labels and envelopes. In line with these tests United States Department of Agriculture scientists are endeavoring to place production of sweet potato starch in competition with the imported product, not only as a glue for stamps, but also for other uses, such as starches for laundry, for stiffening yarn in textile mills, for puddings and candies....

"Officials say cost of production—now slightly less than 3 cents a pound—would have to be reduced more if the starch were to compete with the imported product. Plant breeders are trying to develop a type of potato of higher starch content, and new processing methods are being tried. Helping to reduce costs has been a discovery that the potato pulp remaining after extraction of starch is a good cattle feed, which can be sold at \$25 a ton in the Laurel (Miss.) market."

AILY DIGEST

repared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXXVII, No. 32.

Section 1

May 14, 1940.

FARM LABORER'S LOWEST OF ALL

"The lot of the American farm laborer is harder, his LIVING STANDARD burden of responsibility is heavier and his standard of living is the lowest of any occupational group in the country, C. Horace Hamilton of the Agriculture Depart-

ment's Division of Farm Population and Rural Welfare told the Civil Liberties Committee Monday," says the New York Times of May 14.

"The problem of farm labor is not confined to a few commercial truck and fruit growing areas,' said Mr. Hamilton. 'It is nation-wide in scope, its ramifications reach into every aspect of our national economy and the worst of it is there is little the farm laborers, the most ambitious of them, can do about it, 1 Mr. Hamilton said.

"The farm worker's major difficulty, he went on, is an income far below the requirements of decent living and the difficulty, if not impossibility, of adding to or supplementing that income."

'PATMAN BILL WOULD INCREASE EMPLOYMENT!

"George J. Schulte, publisher of the Interstate Merchant, St. Louis, Mo., contented Monday before the House Ways and Means subcommittee that passage of the Patman Chain-store bill would increase employment and stimulate

recovery, " according to the Baltimore Sun today. ".... Schulte declared that passage of the bill would result in the opening up of 442,329 independent stores to take the place of 127,182 chain units which probably would be closed because of the bill.

"This would be a not increase of 314,847 stores, he said. There would be no vacant stores, but there would be a demand for building more stores. There would be at least 417,000 more people employed than under the present chain system. !!

WAR MAY STOP "Purchases of Argentine flaxseed by American crushers CRUSHING OF S. will probably come to a halt as a result of the elimination AM. FLAXWEED of Holland and Belgium as an export market for linseed cake manufactured in this country, it is felt in the trade here," says the N. Y. Journal of Commerce for May 14. "Invasion of the Low Countries by Germany has created an uncertain situation for domestic crushers. Mills on the Atlantic Seaboard, representing more than 40 percent of the domestic crushing capacity, are normally operated on Argentine flaxseed. The situation was made possible by the existence of a market in Holland and Belgium for the cake by-product."

Milk Needed

as Supplement
Says McCollum

Standpoint of Human Health and Economics."

He states some of his reasons:

"In an answer to the question, 'Why Milk?' any one who is well informed in the science of nutrition would point out that certain of our most commonly used foods, such as sugar and refined cereal products, are very deficient in essential nutrients, and we must plan our daily diets so as to include sufficient amounts of foods which provide in abundance what these lack...Milk is the one food which supplements most of our other foods well in the sense that it provides in relative abundance those nutrients which are most generally lacking in several of our most widely used food-stuffs.

"There are, of course, other reasons why the people of this country should consume liberal amounts of milk and other dairy products. These relate to the national economy. The United States cannot possibly shift the agricultural resources now devoted to dairying, to cereal, meat or any other kind of food production because we are now making more of these products than we can use."

Capper Would

Grow Rubber

In Brazil

United States use some of its gold to develop the rubber industry in Brazil, according to the Baltimore Sun for May 13.

"In an address prepared for broadcasting, the Senator discussed the possibility of European war developments shutting off United States access to essential stocks, such as rubber and tin, from the Dutch East Indies.

"We would be better off if we were getting our rubber from Brazil than to have to continue to depend on the Dutch East Indies, he said."

William T. Ham, research expert for the USDA, on FriMarket day told the La Follette Civil Liberties Committee that,

"The farm labor market is a most chaotic and badly organized matter; in fact, it is almost too much to say that
there is such a market at all," according to a story in the N. Y. Times
of May 10.

According to the Times, Mr. Ham said that the man "who wants to buy farm labor in the U.S. and the laborer who has it to sell have to overcome all sorts of wasteful and unnecessary hurdles before they can so much as find one another. This condition has been a considerable factor in producing a generally unsatisfactory worker-employer relationship. It has been contributing to the fluctuating character of supply and demand in farm labor and this has complicated the difficulties of migratory and other farm workers."

acceptant to the second

New Instrument

For Analyzing

New Agriculture for April. The article says:

Soils

"Installation of an instrument which will determine in one operation the nature and the quantity of minute traces of metals in soils is announced by a Seattle consulting and analytical chemistry laboratory.

"This master tool of science, the grating spectrograph, is the modern adaptation of the spectroscope with which astronomers first determined the

composition of the stars and the planets.

"In the hands of an expert chemist, the spectrograph will resolve and identify trace elements measuring 0.01 percent of the specimen examined. Thus the presence or absence of barely discernible quantities of the essential mineral constituents in soil can be readily determined. One spectrographic analysis suffices to detect the nature and quantities of practically all mineral elements present in a sample, which means that the farmer pays for but one analysis and gets actually 13 or more complete determinations. By a special type of spectrographic determination, the Vitamin B1 content of a plant can be ascertained.

"The spectrographic method has many advantages over chemical analysis for soil determinations. It is speedier, very much cheaper, and the amount of sample is extremely small."

Alaska Dust
Storms Peril
Girector, said yesterday the federally sponsored farm
Farm Fertility
Colony in Alaska's Matanuska Valley might become another
dust bowl' unless farmers took immediate steps to preserve the rich but shallow soil," reports the Atlanta Constitution for
May 10. "The early settlers of Matanuska Valley—farmers from submarginal Michigan, Minnesota and Wisconsin farms—erred in removing valuable windbreaks and these must be replaced 'to prevent the soil from blowing away,'
Rockie said....

"The soil at Matanuska is rich but shallow. We already have sent trees, shrubs, legumes and grasses to the area in efforts to save the soil, he added. The trees can be planted for windbreaks and the grasses should hold the soil during the winter months when the winds blow hardest. Remember this, I believe farming in Matanuska can be conducted just as well as in other similar areas—Norway, Sweden or Denmark.!"

An article by Isely Bliss, "The Case History of Wheat,"

AAA Wheat

Program

Triple-A wheat program. "Seven years of the AAA not only have failed to bring parity, they have not even reduced acreages, though we have paid good money out of the Treasury for the purpose," the article states. "More wheat is being put into the ground than ever before. These attempts at crop control have all defeated their purpose."

New Types of Rural Research Needed-Taylor

Rural Sociology, for March, carries a report of a recent address by Carl C. Taylor, of the Bureau of Agricultural Economics, before the Rural Sociological Society Philadelphia. In his address, "Social Theory and Social

Action," Doctor Taylor says:

6512. 3 A "The recognition that a portion of the roots of some of our most distressing agricultural problems are social, psychological, and cultural opens the gates and creates the need for types of research new to rural sociologists. Considerable change is initiated by conscious planning of agricultural programs; and all planning programs must take cognizance of

changes which are occuring, whether planned or not....

"The administrations responsible for the promotion and operation of a number of the present programs in agriculture are specifically requesting rural sociologists to answer the question: What standard of living should a farm family in this or that area have? They assert they are unable to plan the work of land use adjustment, of soil conservation, of agriculture price adjustment, or of farm security without having something approaching a prescription for the amount of money or the quantity and quality of goods needed for an acceptable standard of living for farm families. They state further, and without equivocation, that they must predicate their programs of adjustments on the findings which the rural sociologist should, and they believe can, furnish them from standard of living research. In this situation, the rural sociologist is presented a real opportunity and is also put to a real test...."

Cereal Chemistry, for May, contains an article by Eggs--Fresh, J. A. LeClerc and L. H. Bailey on "Fresh, Frozen, and Frozen or Dried --Dried Eggs and Egg Products." The article says in part: in Food Today "Hen eggs are available to manufacturers of food product

in four forms, namely shell eggs, liquid eggs, frozen eggs and dried eggs. The separated whites and yolks are available for commercial uses in liquid form, or frozen, or dried. The baker, who, among food manufacturers, is the largest consumer of fresh and frozen eggs, utilized in 1932 over 11 million dollars worth of fresh shell eggs, nearly 21 million dollars worth of frozen egg whites, and 15 million dollars worth of frozen yolks.

"The manufacturer of noodles, is also one of the largest users of eggs, especially egg yolk (frozen or dried) and whole eggs (fresh, frozen or dried). About 52 percent of the weight of noodles must be made up of whole eggs and/or of yolk and the value of egg products used in making

noodles is fully \$1,500,000 a year.

"In recent years, the prepared-flour industry has been making notable strides. Dried eggs are largely used as one of the essential ingredients of most prepared mixes. The quantity of yolk (largely frozen yolk) used by the mayonnaise and salad-dressing industries is quite considerable, approximating in 1937 some 15,000,000 to 20,000,000 pounds (Radabaugh, 1938)."

DAILY DIGEST

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Vol. LXXVII, No. 33

Section 1

May 15, 1940.

WAR'S TURN. DRIVES DOWN COMMODITIES

"Profound shock over the turn of events in Europe, suggesting a possible early termination of hostilities, was translated into a wave of speculative selling in commodity futures markets Tuesday which drove prices

down relentlessly and left most markets in a state of complete demoral-

ization," says the New York Journal of Commerce for May 15.

"Agricultural export commodities were hit the hardest. Wheat, rye and soybeans at the Chicago Board of Trade broke the full permissable limits for one day, while cotton values crumbled to maximum losses of about 50 points. Lard also lost ground sharply... Meanwhile, buying in commodity spot markets came to an abrupt halt Tuesday afternoon when the break in the futures markets was rapidly heading toward its climax."

COURT ORDERS FLOOR TAX OF AAA REFUNDED

"A Baltimore department store Tuesday won in a tax suit described by Government attorneys as a possible test case in which about \$58,000,000 in Federal funds hinge," says the Baltimore Sun of May 15. "The victory

will require the refunding of taxes paid by the store under the old Agricultural Adjustment Act.

"The litigation was instituted against the Government by Hutzler Brothers, which sued for about \$3,750 in so-called floor taxes levied on goods which wholesale and retail stores had on hand at the time the cotton processing tax became effective at manufacturing plants."

MIGRANT WORKER IN TEXAS IS ODD PROBLEM

William C. Holley, of the Bureau of Agricultural Economics, told the Senate Civil Liberties Committee that "the migratory labor problem in Texas involves not only all of the factors which complicate the agricultural situation in California, but others which so far appear to defy solution,"

according to the New York Times of May 15.

"While the migrant worker is a permanent and essential factor in Texas," the Times continues, "the rapid shift in recent years to larger power and equipment units has increased the demand for seasonal labor and contributed to an already growing surplus of wage-workers, partly dependent upon agricultural earnings. Meanwhile, opportunities for between-season employment in industry have steadily decreased. Mr. Holley estimated at 'better than 40,000 in a good year' the number of migratory workers in the State."

New Method "A new method of measuring soil moisture which may of Measuring possess great value in controlling irrigation has been Soil Moisture developed by the Michigan State College, says an article in New Agriculture for April. "The apparatus gives a continuous measurement of soil moisture in sites under field conditions without disturbing either the plant or the soil. A continuous measure of soil moisture at various depths reveal the actual moisture conditions at any time, thus enabling the practice of a more efficient and economical irrigation.

"The apparatus consists of an absorption block about the size of a small match box which is buried at any desired depth in the soil. Two insulated wire leads connect this block to a specially devised portable instrument which measures the electrical resistance of the block. Since the blocks are porous they readily take up moisture from the soil. As the soil dries out the block loses moisture so that changes in soil moistures are followed by changes in block moisture. Furthermore the electrical resistance of the block changes in proportion to its moisture content. Hence a change in soil moisture is measured by a change in the electrical resistance of the absorption block. Many absorption blocks can be distributed over the growing areas at different depths to provide numerous points of measurement."

Vegetables Give Lower Protein Intake Value "Professor E. V. McCollum of Johns Hopkins University presented a paper before the Scientific Congress section on public health and medicine on Monday...in which he cited biochemical studies in the

relative protein value of various foods," says the N. Y. Times of May 14. "The studies show, Prof. McCollum reported, that a diet consisting wholly of vegetables provides the body with a much lower protein intake value than a diet that also includes meats and other proteins of animal origin.

"All assays of legume seed proteins show them to be of relatively low value, said Prof. McCollum. One of the important nutrition problems in areas of great extent in the warmer regions is the provision of a fully adequate protein supply."

Georgia's
Bee
Industry

"Maybe you didn't realize it, but the bee business is a pretty hefty industry in Georgia," says the Atlanta Constitution, May 12. "It brings the beekeepers more than \$800,000 annually, and Georgia is a leading

state in shipment of bees to other sections."

Columbus Roberts, commissioner of agriculture, has announced a "Honey Show" to be held in Atlanta this fall. The show will be sponsored by the Georgia Beekeepers' Association, the State Department of Entomology and the State Department of Agriculture.

Phenothiazine
and Insect War

a discussion, by Herbert Currie, of the use of phenothiazine in man's "eternal war against agri-

cultural pests."

"In the opinion of scientists of the Department of Agriculture," says Mr. Currie, "phenothiazine is one of the most versatile chemical substances brought to light in recent years. Phenothiazine has shown promise as a medication for certain infections of the urinary tract; as an insecticide, as a fungicide and as a control of larvae of horn flies and mosquitos. Its use also led to a treatment for screw worms affecting cattle and other worm infestations of stock....

"Entomologists now are trying various substances which may be applied with the phenothiazine which will cause it to 'stick' and build up a residue to protect between sprayings. It is hoped that phenothiazine can be used as a substitute for the arsenicals which must be washed from fruits and vegetables. In its original form phenothiazine is effective only as an insecticide. It has been found, however, that when exposed to strong light, it undergoes a chemical change. In this form, known as phenothiazone, it is highly toxic to fungi, although no longer effective as an insecticide."

New Mildew Resistant Cantaloupe "For the second time in three years the tenmillion-dollar cantaloupe industry in the Imperial Valley of California and Arizona finds itself in the process of being saved by the introduction of a

new mildew-resistant melon," says Henry Schacht, special writer on Pacific Coast farm topics, in the Country Gentleman for May. "The new melon, known as mildew-resistant cantaloupe No. 8, is the result of a co-operative cross-breeding project carried on by the University of California College of Agriculture and the United States Department of Agriculture.

"Powdery mildew first appeared in the Valley in 1925, and the next year the Department and the College of Agriculture started their breeding project. In ten years mildew had all but ruined the cantaloupe industry, losses of more than thirty percent of the crop being common... In 1937 the breeding project...produced mildew-resistant cantaloupe No. 45...which was adopted by Imperial Valley growers...

"However, in 1938 a new type of powdery mildew suddenly appeared in the valley...Crop losses again mounted and the scientists went to work...Now they have developed the new cantaloupe No. 8, which is resistant to both...forms...of mildew. Seed is being increased this year and...it looks now as if No. 8 will be able to...put the country's most important cantaloupe producing area back on its feet."

New Beet Topper Good in Test

"A mechanical sugar beet topper developed by the University of California College of Agriculture has been tested in four western states, including California, during the past year and has given results comparable to

those obtained when topping is done by hand," according to New Agri-

culture for April.

"Known as a variable cut topper, the machine is based on information showing a definite correlation between the thickness of the beet crown and the height that the beet grows above the ground. Topping is done by a vibrating knife connected with a self centering finder. As the finder passes over a beet in the field it gauges the height of the cut so that the knife takes a larger cut on a high beet than a low one.

"The finder and the knife are equipped with springs that hasten depression of the knife when passing from a high to low beet. If gravity alone were depended on to lower the knife, the machine travelling at its regular speed of three miles per hour in the field would cause many

beets to be missed."

"Pea vine ensilage and pea vine hay are becoming Pea Vine Hay important dairy and livestock fattening feeds in southand Ensilage Are Fat Feeds eastern Washington, as a result of the growing importance of the vegetable canning industry," according to an AP dispatch in the Amarillo (Tex.) Daily News of May 3.

"E. C. Burlingame, local sheep rancher, fed about 50 tons of pea hay last fall, and reported it unusually good for fattening buck lambs and yearlings and in producing a copious milk flow in ewes. The hay was cured without moulding or decay, he said, at pea harvesting time by spreading the vines on a field and separating them with a hay-tedder to permit efficient drying.

"Dairymen generally feed the ensilage from racks, allowing the cows access to it throughout the day, and feeding alfalfa at night and during milkings. Supplements hereabouts include sugar beet tops and pulp and the apple pomace from the Walla Walla vinegar works. Some use pea hay and pea silage without recourse to other roughage. Pea silage sells for \$2.25 to \$3 a ton. The hay costs about the same as alfalfa."

Vitamin G "An expert on vitamins ran through the vitaminic Offers Wide scale from A to K here yesterday and said that these Possibilities 'very potent' vital substances offered wider and wider possibilities to human welfare, " says the Richmond (Va.) Times-Dispatch of May 10. "Vitamin G, one of the eight known now to concern human well being, is the one that may turn out to be the soldier's friend in wars, Dr. Harry N. Holmes, professor of chemistry at Oberlin College, told a meeting of the American Pharmaceutical Association. Holmes said: 'A Serbian army weakened by scurvy was reinvigorated by the addition of freshly sprouted beans and peas with Vitamin C, and Denmark exported most of her butter, rich in Vitamin A, and was punished with an outbreak of bronchial troubles among the children. "

DAILY DIGEST

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Section 1

May 16, 1940.

U. S. TO FACE BIG PROBLEM "Secretary Wallace declared Wednesday that, should Germany win the war, this country would face its greatest readjustment problem," says the Washington Post of May 16. "Speaking at a luncheon in honor of chairman Jones

(D.,Tex.), of the House Agriculture Committee, who is to retire from

Congress and take a Federal judgeship, Wallace said:

"'If Germany should crash through, we know that we have a problem of readjustment that would be greater than any we have faced heretofore.' Later in the day Wallace said the Commodity Exchange Administration was considering asking the grain markets to 'cooperate' on measures to curtail price fluctuations...(He) said such measures might limit daily price fluctuations to five cents a bushel. Present rules limit price changes to ten cents. Discussing the agricultural outlook...(he)... said he expected farm exports—principally cotton, food products, wheat, fruits and tobacco—to be thirty percent lower during the next fiscal year."

\$3,138,108 FOOD STAMPS ISSUED IN ROCHESTER "Uncle Sam closed his books Wednesday on the first year of the food stamp plan in Rochester and found that he had issued \$3,138,108 in orange and blue stamps to feed Rochester's needy," says the New York Times today.

"He found, too, that through the blue stamps Rochester grocers had received \$1,046,520 worth of business which they otherwise would not have received. Fred Lester, office manager of the FSCC, said that the orange stamp sales totalled \$2,091,588...The blue stamp total was \$1,045,794 plus \$726 issued to voucher relief cases."

FARM MONEY
BILL GOES TO
CONFERENCE

"The House sent the Agricultural Department Appropriation Bill back to conference Wednesday after approving items totalling \$917,467,983, but disapproving allocations of \$3,010,743," says the New York Times today. "Although

the House agreed to a Senate amendment providing \$212,000,000 for farm parity payments which was not included in the budget estimate, it added an amendment concerning allocation of the money among producers of five basic farm crops which will require further conference. Among items approved were authorization of the RFC to lend \$100,000,000 to the REA for loans of farm electric cooperatives and \$50,000,000 to the USDA for the farm tenant rehabilitation program. Items still in disagreement included \$1,000,000 for acquisition of national forest lands, a similar amount for the forest roads and trails, \$600,000 for beetle eradication, \$382,808 for pink boll worm control, and two or three minor items."

Interplanting, Mulch Raise Tomato Yield

"Two new and unusual methods of culture are being brought forward this year as a means of reducing the wide variations in yields of tomatoes," says F. J. Keilholz, extension editor at the University of Illi-

nois, in the Country Gentleman for May. "One of these is straw mulch and the other the interplanting of field corn with tomatoes. Both methods are an adaptation of the shelter-belt idea for crop protection, and were developed in experiments conducted by W. A. Huelson, of the department of horticulture, Universtiy of Illinois College of Agriculture. The straw mulch system has improved the yield of canning tomatoes as much as eight tons an acre in some seasons, while the interplanting of field corn with tomatoes has increased the rield of the latter crop thirty percent ... "

Huelson, according to the article, noticed, in the droughts of 1934, 1936 and 1937 that weedy fields bore the best tomato crops; so he started developing straw mulching and interplanting as a form of crop insurance. "Also promising is the interplanting of field corn with tomatoes. Huelson's results show that, if a grower wants to plant one acre of tomatoes and one acre of field corn, it will pay much better to alternate the rows by pairs over two acres than to plant an acre of each solid. The corn will yield about ten percent more than if it were planted soild, and the tomatoes about thirty percent more."

Sulphur Aids Rice But Cost Is Too High

"Experiments have been conducted at the University of Arkansas Rice Branch Experiment Station to determine the effect of sulphur treatments on stem rot and the yield of rice on relatively poor rice land where the

yields have been low, and on alkaline spots where it has been impossible to obtain a good stand of rice," said E. M. Challey, Arkansas Agricultural Experiment Station, in the Rice Journal recently.

"The results show that sulphur applications may slightly retard stem-rot development; however, the increased yields thus obtained are not sufficient to pay for the cost of sulphur application. Similarly, increases in yield on poor rice land have not been sufficient to pay for the cost of sulphur application. On alkaline spots marked increases in yield have been obtained by sulphur treatments. In some areas approximately 40 bushels of rice per acre were obtained from plots treated with 1,000 pounds of sulphur per acre, whereas the yield on the untreated plots was practically nothing. However, due to the high cost of sulphur, additional information must be obtained before it can be stated that sulphur applications are profitable even on alkaline spots."

Sugar "Tartar emetic and sugar, two substances associated more often with the diet than with insect control, For Bugs promise to be valuable as constituents of sprays and dusts designed to combat thrips on oranges and lemons. The two substances have been tested in combination at the University of California Citrus Experiment Station in Riverside. Field experiments have shown such promise that additional work is being planned." (New Agriculture, April).

Vitamin B-complex can be used successfully in the treatand Its Uses ment of some types of mental diseases formerly diagnosed
as due to the hardening of the brain arteries or as alcoholic psychosis was reported in Washington Tuesday before the American
Scientific Congress by Dr. W. H. Sebrell, Surgeon of the U. S. Public
Health Service, according to the New York Times of May 14. The vitamin, which cured many cases of psychotic illness, characterized by a
state of mental confusion, disorientation and apprehension, is known as
nicotinic acid...

"In addition to thiamin, riboflavin and nicotenic acid, Doctor Sebrell stated, there are several other factors in the Vitamin B-complex. Two others have been chemically identified and synthetically prepared, namely, vitamin B-6, recently re-christened pyridoxine, and pantothenic acid. In addition to these five known vitamin B-complex factors, there are several other less well identified members of this group about which new information is rapidly accumulating. Among these are vitamin B-4, vitamin H, the adrenal necrosis factor, the anti-gray hair factor, the anti-hemorrhagic factor, factor U, factor W, and possibly others. To prevent these vitamin deficiency diseases, Doctor Sebrell stated, 'an adequate diet is all that is necessary.'"

Green Fodder K. C. Sen made a study of congenital blindness in and Blindness calves at the military farm at Quetta, India, and his findings were reported in the (English) Veterinary Bulle-"There appeared to be two forms of the disease, amaurotic tin for May. and tetratoma blindness," said Mr. Sen. "The question was whether they were of the same origin... Investigations concerning nutritional factors were carried out... The chief nutritional faults found were, firstly, a lack of any green fodder for a large part of the year and secondly, deficiency in phosphorous, though in the Quetta dairy this was compensated by feeding good concentrates. There was no marked imbalance in mineral content. Analysis of blood and sera showed no significant difference between animals which had given birth to blind calves and those which had not. Further investigations were considered to indicate that the disease, which started most probably during intra-utorine life, was not directly due to calcium or phosphorus deficiency ... A liberal supply of green fodder has eliminated the trouble at Quetta farm."

Spiders Eat
Snakes

"Snakes commonly eat spiders and other insects," reports the Atlanta Constitution for May 12. "But in Brazil there are also spiders which eat snakes. Dr. Vital Brasil, widely known scientist, made this disclosure...He says the snake-eating spider is called the 'grammostola,' that it is very fond of several snakes, but especially of one called the 'jararaca' or 'lachesis atrox.' When the spider shoots its neuro-toxic venom into the snake, the latter suffers local cramps and then tetanus, with convulsions, progressive paralysis and death by stoppage of breathing. Then the spider spends days eating his victim. The 'jararaca' snake also is venomous, but his poison will not kill the grammostola spider."

Wheat Hammered
Down 10-cent
Limit 2nd Day

"Led by a 10-cent limit decline in Chicago wheat futures for the second consecutive day, most commodity markets lost further ground Wednesday as impaired margin selling had to be absorbed in considerable volume

throughout the day," says the New York Journal of Commerce for May 16.
"Wheat prices opened sharply lower, but managed to recover most of the initial loss during the early part of the day. Following the respite, a new wave of liquidation struck the wheat pit, however, and again in record time prices were hammered down the permissable limit of ten cents for one day. This served to unnerve traders in other markets quite severely, so that the afternoon was marked by declining prices in most markets...Cotton futures were active but with the market more two-sided than on the previous day."

Land-Use Planning

In an article in the May issue of Agricultural Leaders

Most Important

Digest, M. L. Wilson, Director of Extension Work,

USDA, says: "At the present time I consider land-use

planning the most important job farm people, the extension service, and

other agencies of the Government have get themselves to do. If we could

planning the most important job farm people, the extension service, and other agencies of the Government have set themselves to do. If we could but make the best use of every acre of land in this country surplus crops would disappear, farm incomes improve, soil wastage from misuse would stop, dust storms and floods would be no more, our democracy would be strengthened with more owners of family-sized farms instead of tenants and migrants, and there would be prosperity for all in a country that was wisely using its basic soil resources while at the same time holding it permanently in trust for posterity. In more than half the approximate 3,000 counties of this country, community and county committees of farm people are now at work in an organized way developing sound landuse plans for their communities...Most of the major problems of farm people today are such that they cannot be solved alone. In land-use planning people are merging their ideas and pooling their efforts, as well as the efforts of their Government, to solve such problems cooperatively..."

Eastern Migrants Furnish Seaboard Regional Problem "Representatives of the Labor Department of New Jersey, Virginia and Maryland told the Senate Civil Liberties Committee Wednesday that the migratory labor situation along the Atlantic Seaboard has developed

into a regional problem, solution of which is dependent on more and better co-operation of State and Federal agencies," says the New York Times of May 16. "Speaking for New Jersey, George C. Krueger, Deputy Commissioner of Labor, testified that a third of its field workers from July to October were interstate migrants. He estimated 30,000 to 40,000 the total number of agricultural workers required in seasons of peak employment, of whom 10,000 to 15,000 were Italians and Southern Negroes."

DAILY DIGEST

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Vol. LXXVII, No. 35

Section 1

May 17, 1940.

SURPLUS OF FARM LABOR INCREASES BEAN DECLARES "Dr. Louis H. Bean, economic adviser, U. S. Department of Agriculture, told the Senate Civil Liberties Committee Thursday that a long-time downward trend in farm labor requirements had increased this

country's surplus of farm workers so much that no outlets were in sight, either in agriculture or industry," says the New York Times of May 17.

"He presented figures showing that total and partial unemployment in agriculture amounted in 1937 to about 1,500,000 persons, and now was 2,500,000 to 2,750,000. Moreover, he said, indications pointed to an annual net increase of about 200,000 youths to the farm-working population, and to an accumulation of an excess of 1,886,000 farm males and 2,166,000 females in the 15-64 age group during the 1940 decade."

RETAIL GROCERS
HIT AT CHAINS
WITH AMENDMENTS

"Developing a new line of attack on interstate corporate chain systems, with amendments to the Clayton Act to cover specific chain practices allegedly unfair to independent distribution and prejudicial to the

public good, was disclosed this week by Gerrit Vander Hooning, president of the National Association of Retail Grocers," says the New York Journal of Commerce for May 17. "A determined drive by the independent retail grocery trade against the alleged monopolistic tendencies of the major food chains, he told the New Jersey Association of Retail Grocers convention at Asbury Park, would continue to feature the activities of the Grocers' National Association. This program ties in with that of the U. S. Wholesale Grocers' Association, which pledged at its Savannah convention to continue fighting against the corporate chain 'aggression' even if it required ten or twelve years to win such a campaign."

MERCHANDISE EXPORMS DROP DURING AFRIL

"Germany's Scandanavian invasion was credited by the Commerce Department Thursday with causing a drop in United States merchandise exports in April," says the Baltimore Sun of Hay 17. "The month's shipments totaled \$315,000,000

which was \$29,000,000 less than in March, \$12,000,000 under the average for the first seven months of the war, but \$28,000,000 higher than the pre-war month of April, 1939. Exports to Scandanavia, including Finland, accounted for \$16,000,000 of the decline, with shipments down \$5,000,000 for Norway, \$6,000,000 for Sweden, \$1,000,000 for Denmark and \$4,000,000 for Finland..."

Continental
Plan to Stop
Poverty Centers

"Continental planning to prevent development of centers of poverty and discontent was urged by Roberto C. Simonson of the Brazilian Institute of Geography and Statistics at the American Scientific Congress in

Washington Tuesday," according to the Washington Star of May 14.

"Once such an area starts in any country, he said, there are psychological barriers against self-cure by migration to richer regions—the attachment to home, the extreme conservatism of rural populations and the sapping of vitality, which lowers initiative. Also, he said, the population soon becomes so poor that it cannot move anyway. The remedy must be constant national surveys to detect centers of underpopulation and over-population and State-fostered migration movements. In addition, Dr. Simonson stressed, there should be international and intercontinental arrangements for large migrations."

Indiana
Baltimore
Tomato

"Indiana Baltimore, a late-season, medium-size, redfruited main crop tomato variety, used almost exclusively to plant Indiana's more than 80,000 acres of cannery tomatoes as well as thousands of acres elsewhere, it is

a product of twenty years' selection and breeding work carried on by Purdue University," says F. C. Gaylord, assistant chief in horticulture at Purdue in the Country Gentleman for May.

"Indiana Baltimore traces its ancestry back to Greater Baltimore, a standard red-fruited, late-cropping variety. To begin the breeding and selection program, seed of this variety was secured from the orginator. From a twenty-acre field, a single plant was picked to start this now-famous variety. Individual selections have been made each year. At first, individual plants were used, but now individual fruits are used. Thousands of individual selections have been made and compared...In the past twenty years, over a thousand strains and varieties have been compared with Indiana Baltimore. For Corn Belt conditions, none has yet been found that compares in vigor, yield and quality to Indiana Baltimore."

Timber Stands
Understocked
In South

Forest stands in the South are only one-half to one-fourth stocked, according to a report of the Forest Service, U. S. Department of Agriculture. Compilation of data based on field surveys in 1932-1936 indicates that

frequent fires and indifferent treatment of the forest resources have resulted in reduced and poorly growing stands throughout the commercial timber belt of the most southern states. The southern field survey, carried on in connection with the nationwide Forest Survey now being conducted by the Forest Service, covered nearly 210 million acres in portions of Texas, Oklahoma, Arkansas, Missouri, and all of Georgia, Florida, Louisiana, Mississippi, and Alabama. (Press Release).

Difficult to

Measure Cotton

Belt Programs

Trial, Labor and Agricultural Control Policies Upon
Farm Labor, " read recently at a joint session of the
Rural Sociological Society and the American Ferm Economic Association
at Philadelphia. The paper, reported in Rural Sociology, says, in conclusion:

"It has...been impossible to measure with the data at hand the precise effects of the agricultural programs upon farm labor in the Cotton Belt, as elsewhere. However, the nature of their impact is clear. The foregoing will serve as a sketch of the economic and technological environment in which the agricultural programs must operate and of the changes affecting farm labor to which they will inevitably contribute. In the South, mechanization is likely to continue. Present prospects in the domestic and export market for cotton hold little promise of any immediate return to a forty-million acre crop. Reduction of the number of tenants and wage-hands, under these circumstances, seems inevitable. Here, as elsewhere in the nation, we recognize the seriousness of a situation in which farm labor lacks access to industrial opportunity. To the failure of industrial production to expand, the control policies of industry and of labor are contributing. The agricultural policies, on the other hand, with their necessary emphasis upon control of production, cannot offer avenues of escape. In the meanwhile, a population increase since 1930 of some six million souls adds to the difficulties."

Soil Erosion Costs Yearly \$400,000,000 "Soil erosion is costing the farmers of the United States a minimum of \$400,000,000 a year, Hugh H. Bennett, chief of Soil Conservation, told delegates to the Science Congress in Washington Wednesday,"

according to the Washington Star of May 15. "Even now, he said, approximately 500,000 acres a year are being ruined so that they are of no value for agriculture. In a century, more than 1,000,000,000 acres, or half the area of the continental United States, have been ruined."

Duluth, Named For Food Stamp Plan

Secretary of Agriculture Henry A. Wallace has announced that the Food Stamp Plan for distributing surplus agricultural commodities will be extended to Duluth, Minnesota, and the rest of St. Louis County.

Duluth is the 82nd designation for the Food Stamp Plan, which is now operating in 71 areas. Selection of the Duluth area for Stamp Plan operation followed conferences there between officials of the Federal Surplus Commodities Corporation, and local public officials, welfare officials, and business and banking representatives who will be concerned with the administration of the program. (Press Release).

"California's migrant labor problem is not solving Calif. Urges 5-point Migrant itself, " reports Business Week for May 11. "During March, 5,007 unemployed persons treeked into the state Worker Program compared with 3,790 in March of 1939. The first three months of 1940 saw 11,210 migrants enter the state, an increase of 18 percent over the same period last year. Confronting such facts, California business last week finally issued its own documented appraisal of the situation -- a report which had been widely heralded as the state's answer to John Steinbeck's 'Grapes of Wrath.' The State Chamber of Commerce made public the conclusions drawn from a survey by its Migrant Committee, following lines previously charted."

The report proposes the following "six-point program" which is important because it will be the basis of action by the state chamber: (1) Out-migration should be retarded with Federal aided rehabilitation programs in each distressed state. (2) Farm Security Administration migratory labor comps should be continued as an emergency measure. (3) Farmers should develop permanent housing facilities on their own land for nigrant families. The government night possibly help in financing these facilities. (4) State Employment Service should be re-organized to better serve California's needs. (5) Farmers should "stop unsound employment and labor practices in Arizona." According to the Chamber's survey, cotton pickers are lured with advertisments to Arizona and, when the season ends, are shunted over the California border. (6) The Chamber should support the Tolan Resolution (H.R. 63) to investigate interstate migration and urge the Mational Resources Planning Board to study re-establishment of migrants in states of origin.

Beriberi May

Beriberi, ancient disease of the Orient and Be Caused By commonly associated with the eating of polished rice,

Alcohol --Weiss flourishes in America and other Occidental nations and may be caused by quantity consumption of alcoholic

beverages, Dr. Soma Weiss, a Harvard Medical School scientist, told the eighth American Scientific Congress in Washington Monday," says the Washington Post of May 14.

"Beriberi is manifested, Doctor Weiss said, by swelling of the limbs, increase of the rate of heart beat and the ultimate enlargement of the organ, a speedy gain in weight of from thirty to forty pounds and multiple neuritis. The disease is quite common, he said, among alcoholics, whose consumption of intoxicants provides them with an abundance of calories and fattens them without giving necessary vitamins. Similarly, the diets of low-income groups in the Americas, characterized by large amounts of bread and potatoes, fail to provide sufficient vitamins and tend to establish predispositions to the disease. Relief and cure of sufferers, he said, was effected by administration of thiamin."

DAILY DIGEST

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Section 1

May 20, 1940.

CHICAGO, DULUTH KANSAS CITY AND OTHERS PEG WHEAT "The Chicago Board of Trade Sunday pegged grain prices to halt the plunge that sent wheat down about thirty cents in six days as German armies crashed through defense lines in Holland, Belgium and France,"

says the Baltimore Sun for May 20. "Similar actions, it became known in Chicago later, were taken in Kansas City, Minneapolis, and Duluth. St. Louis Merchants' Exchange directors are to meet Monday to consider pegging the mill-feed futures market. In an emergency move with few precedents, the Chicago market acted at the Government's request to stop the fall, which has reduced the potential market value of this year's wheat crop around \$200,000,000."

DECLINE IN
PRICES THREAT
TO FARM INCOME

"The sharp declines in agricultural prices last week threaten to reduce farmers' cash incomes below a year ago for the next few months," according to the Business Outlook in the New York Journal of Commerce

for May 20. "However, because of the Government loans on crops available, the decline should not exceed five percent or so. The winter wheat crop will be some 100,000,000 bushels smaller than last year. Futures quotations on new crop wheat are slightly higher than in 1939. The fifteen percent decline in output will thus reduce farmers' income from this source about ten percent from a year ago, unless the Government takes additional measures to sustain farm income."

FARM LABOR
INCREASES AS
DEMAND DROPS

"'Paradoxically, hired farm laborers are steadily increasing in the corn belt in spite of the fact that labor requirements are just as steadily declining, Professor Ray Wakeley of the University of Lowa testified

fessor Ray Wakeley of the University of Iowa testified before the Civil Liberties Committee Friday," according to the New York Times of May 18. "There had been no appreciable decrease in farm population in Iowa in the last eight years, he added, ascribing this to the increase in agricultural income rather than to a shortage of jobs in industry. Sherman E. Johnson and R. S. Kifer of the U. S. Department of Agriculture, predicted displacement of 350,000 to 400,000 workers in agriculture in the next ten years. They cited reports indicating that the average number of such workers was 544,000 less in 1939 than in 1930 and the average number of such hired workers 371,000 less."

'Cotton Stamp
Working Well
in Beginning'

"Evidence from all those directly concerned with the cotton stamp experiment is that it is working well in its initial stages," says an editorial in the Memphis Commercial Appeal for May 15. "Purchasers and

recipients of the stamps are naturally pleased, but the merchants would not be gratified unless they were able to see sound business in the movement. It is to be hoped that all the elements involved in the operations of the cotton stamp plan will be meticulously careful to observe the spirit and the letter of the rules and regulations so that the program may be given an utterly honest test. It has splendid potentialities without question, and if Memphis can prove its benefits and feasibility, it will probably be expanded until it becomes a major factor in reducing cotton surplus and in supplying the wants of the needy in a constructive manner."

Speciation
Study Unit
is Forming

"A new, informal organization, the Society for the Study of Speciation, is in the process of formation, with Professor Alfred E. Emerson of the University of Chicago serving as secretary, and an executive committee

representing a number of other leading scientific institutions," says the Science News Letter for May 18. "Object of the new association will be the study of the origins of species and races as a dynamic process. Scientists interested include anthropologists as well as zoologists, botanists and bacteriologists. Approaches to problems range from the study of specific and racial classification systems to life processes manifested either in the field or in the physiological laboratory."

New Approach
To Treating
Tuberculosis

Modern Medicine for May reports the following new fact presented at the meeting of the American Chemical Society in Cincinnati last month: "A combination of dinitrophenol and sulfanilamide has been used in the

treatment of tuberculosis in guinea pigs. As reported by N. L. Howard and E. C. Link of Memphis, Tennessee, all experimental animals treated with this combination survived from five to fifteen months after infection with tuberculosis bacilli. The use of dinitrophenol is based on the principle that some chemical is necessary to penetrate the capsule of the tuberculosis bacilli so that the sulfanilamide may exert a bacteriostatic or bactericidal effect."

U.S. Commerce Opposes Chain Store Tax Bill "The Commerce Department expressed opposition to the Patman chain store tax bill Friday, contending that it would add new burdens to business..." says the Washington Post for May 18. "Edward J. Noble, Acting

Secretary of Commerce, in a letter to Chairman Doughton (Dem.) of the House Ways and Means Committee, said that the bill was not favored by farmers, consumers or 'any substantial group of fair-minded business men.'"

Plains Haze

| The visibility of smoke of forest fires must be considered in planning fire detection systems and in directing the activities of a detection force..."

| says the Journal of Forestry for May. "The Plains haze meter was designed to measure the visibility of distance of small smokes where country is flat or rolling. This instrument utilizes dark targets relatively close to the observer, such as the shaded sides of clumps of trees at the edge of a clearing, or dark wooded slopes in slightly rolling country....Without changing the calibration of the haze

slightly rolling country....Without changing the calibration of the haz meter, it is possible to construct tables giving the visual range of smokes of any desired size, such as the smoke from an eighth-acre fire. this might be desirable in regions where the initial rate of spread of fires is high and where different detection standards prevail...The Plains Haze meter may also be used in mountainous regions..."

New Type of "A new type of seed flat designed for use in the Seed Flat For home, the cold frame, the hot house, out-of-doors, or Use in Research for purposes of research in the laboratory, has recently been introduced by a seed company," says Scientific American for June. "Measuring 12 by 14 by 3 inches, it is made of rust-resisting metal and employs an entirely new method of watering which allows for sub-irrigation without any messy leakage of soil or disturbance of seed or seedlings...An inner plate having widened openings at each end and perforations in the corrugations in the bottom, permits water to be poured in and seep up through the perforations

right to the surface of the soil... Then a screw plug at the bottom of the flat is withdrawn so that any excess water may be removed. Further

watering is not necessary for a week or ten days "

Although United States exports of fresh and cured High Jan-Feb, pork were 65 million pounds in the first 3 months of Low For March 1940, an increase of more than 100 percent over exports for the same period in 1939 (30 million pounds), they were only 5 million pounds in March of this year, as compared to 11 million pounds in March, 1939, according to Saturday's issue of Foreign Crops and Markets, weekly publication of the Office of Foreign Agricultural Relations. These figures include canned pork on a dressed weight basis. (Press Release)

Gradual Increase
In Demand For War have added elements of uncertainty, the basic outlook still is for gradual improvement over the next few months in conditions affecting domestic demand for farm products, the Bureau of Agricultural Economics indicated Saturday in its monthly analysis of the demand and price situation.

The downward trend in economic conditions affecting domestic consumer demand for farm products apparently ended in April. Industrial activity turned upward in the first part of May, and the decline in consumer purchasing power appeared to be about over. (Press Release)

Secretary of Agriculture Henry A. Wallace issued a Wallace statement today, on the first anniversary of the date on Statement on which the food stamp program was started in Rochester, Stamp Plan New York. Secretary Wallace said: ".... Up to May 1,

1940, expenditures for surplus foods with blue stamps issued by the Department had a value of approximately \$10,400,000. Obviously, there has been very little effect upon farm income thus far, because of the cautious manner in which the program has been expanded. The butter expenditures totaled nearly \$2,000,000. Participating families bought about \$1,900,000 worth of eggs. Approximately \$1,700,000 was used for flour, corn meal and rice. Vegetable expenditures amounted to about \$700,000. Purchases of fresh and dried fruits had a value of more than \$1,700,000. Approximately \$2,500,000 worth of pork and pork lard has been purchased. These total expenditures would not have been made in the absence of the stamp program.

"In the local areas now in the operation under the stamp plan, approximately 1,300,000 people are benefiting directly through increased and improved diets. During March and April about \$2,500,000 per month of added food value was placed on their family dinner tables. Nearly a thousand communities have applied for the stamp plan. Within the next few months, it is anticipated that the food stamp program will be extended to a total of about 125 areas; possibly 150 areas if smaller towns are selected. It is our expectation that this expansion will result in additional purchases of surplus foods through blue stamps alone, ranging from \$7,000,000 to \$9,000,000 per month, and will directly benefit about 4,000,000 consumers.... (Press Release)

'Starchless' Potato From Tomato Graft

According to the New York Times of May 17, George H. Chisholm, horticulturist and superintendent of the Greystone estate of the late Samuel Untermyer, has successfully grafted potato and tomato plants to produce a "topato," a new kind of starchless potato that is not fattening.

"In addition to the 'topatoes' growing from the roots of the plants like ordinary potatoes," says the Times, "the bushy upper growth of the plant also produces tomatoes. Although they were not ripe enough to eat...it was suggested that the tomatoes on the upper vine might absorb some of the taste of the potatoes on the roots. The potatoes grown in this manner are completely starchless and are the first of their kind ever grown, Mr. Chisholm said..."

Life Depends "The well-being of a people is like a tree; On Agriculture agriculture is its root, manufacture and commerce are its branches and life; if the root is injured, the leaves fall, the branches break away and the tree dies, said Shonnung, Chinese Emperor and inventor of agricultural implements, 2800 B.C." (Canadian Forest and Outdoors for May.)

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Section 1

May 22, 1940.

VETO THREAT ON RENEWAL OF OFF-SHORE SUGAR LAW "Sharp warning that President Roosevelt will veto any sugar legislation which proposes to reimpose restrictions of the present control law against imports of refined sugar from Puerto Rico and Hawaii was sound-

ed Tuesday before the House Rules Committee by Representative Cummings (Dem., Colo.), head of the House sugar bloc, "says the New York Journal of Commerce for May 22.

"Appearing in support of a rule which would pave the way for early House consideration of his resolution to continue the 1937 act for another year without restrictions on refined sugar which expired with the end of February, Mr. Cummings declared that the President has indicated clearly that he was against renewal of the restrictions and would reject the continuing resolution if included.

SUBSTITUTE ACT FOR JONES-WHEELER FARM CREDIT BILL "The Jones-Wheeler farm credit bill, center of sharp controversy for three months, was shelved Tuesday as the House Agriculture Committee took up a substitute measure designed to aid reduction of farm

loan interest rates within the framework of the present Federal Land Bank System," says the Washington Post for May 22. "Only surviving feature of the original bill, which was backed by Secretary Wallace and Farm Credit Governor A. G. Black, is the provision for refinancing land bank bonds now held by the Federal Farm Mortage Corporation.

1940 BARLEY ANNOUNCED

Loans will be offered on barley produced in 1940, the Department of Agriculture announced Tuesday. The loan will be available to any producer whose 1940 total acreage of soil-depleting crops does not exceed the total

soil-depleting allotment or permitted acreage established for the farm under the 1940 Agricultural Conservation Program. The loans will be made by the Commodity Credit Corporation.

Barley loan rates on the basis of farm storage will be: No. 1 at 35 cents a bushel, No. 2 at 34 cents, No. 3 at 32 cents, No. 4 at 29 cents, and No. 5 at 25 cents. A discount of 2 cents a bushel will be made for mixed barley. Tough, stained, blighted, smutty, garlicky, weevily, ergoty, or bleached barley will not be eligible for loans.

Kansas Fights Bindwed "Fifty-six thousand acres of bindweed 'bit the dust' on Kansas farms last year in one of the greatest noxious weed battles ever staged in any state," says the Kansas

Farmer for May 18. "This year the program will be stepped up 25 percent in an effort to gain more of a strangle hold on this worst-of-all cropstrangling pest.

"The whole bindweed picture, as presented at the State Bindweed Conference at Hays, May 9 and 10, is not anything to dismiss lightly. Attending this meet were 256 registered delegates who are on the firing line charged with putting into effect the Kansas Noxious Weed Law of 1937... There is plenty to do. Ted Yost, state weed supervisor, (said)... that 36,857 Kansas farms have a total of 225,000 acres of bindweed..."

Twins Raise Questions In Breeding

"With the growing interest in the science of livestock breeding today is coming an increase in the number of questions pertaining to twinning," says E. J. Perry, extension dairyman of the New Jersey Experiment Station,

in the Country Gentleman for June.

"There is evidence to indicate that twinning is an inherited character, but since it is not a desirable one no effort has been made to breed

for it in cattle. With sheep, however, progressive owners have selected for it over a period of many years, and as a consequence it has been fixed in many flocks. Recent figures indicate that about one half of one percent of all calves are twins. In the Kansas Experiment Station herd the percentage of twins reached 8.84, thus revealing that the factors for twinning were present to a considerable degree. In the United States twins occur more frequently in the dairy breeds than in the beef breeds."

Butterfat Superior, "Butterfat has something that other fats can-Scientists State not claim -- something which produces better growth and better health than other fats that have been tested," says the Pacific Dairy Review for May. "...Dr. E. B. Hart and fellow scientists at the University of Wisconsin have demonstrated what butterfat can do that other fats cannot do, but no one has been able to put his fingers on the exact ingredient that produces these results. Recent experiments have shown that butterfat is a better food than certain vegetable oils even when oils were supplemented with vitamins found in butterfat, according to the National Dairy Council. were fed skimmed milk with added butterfat, corn oil, coconut oil, cottonseed oil or soybean oil. Those animals on butterfat grew better and produced more and healthier young ... This newly discovered attribute to butterfat adds one more factor to the already great contributions of this dairy product. It is the only food fat in which the important vitamin A occurs in significant amounts..."

AAA Points Out New Factors in Tobacco Market The Agricultural Adjustment Administration Tuesday informed flue-cured tobacco farmers of some new factors in the tobacco situation which will have a bearing on the marketing of the 1940 crop. In a letter

from W. G. Finn, Director of the AAA East Central Division, addressed to county and community AAA committeemen in the bright tobacco area, the

AAA informed the farmers of these recent developments:

(1) The British import duty on tobacco recently was increased for the third time in a year. It now represents a tax of about 18 cents per package of 20 cigarettes, which may be so high as to retard consumption. In 1938-39, British imports of American flue-cured tobacco were more than one-third of the entire 1938 crop. (2) Less than a million pounds have been moved from the 175 million pounds of the 1939 crop held under the purchase and loan arrangements for the British trade. The British option on this tobacco extends until July 1, 1941. (3) Although the lower grades of tobacco from the 1939 crop have been rather fully absorbed by the trade, partly because of the short Chinese crop, a large quantity of the better grades has not yet moved. The surplus from the huge 1939 and earlier crops is the largest on record.

Power Used for

Sheep Dipping

agricultural picture that it now extends to dipping sheep," says A. J. Patch, agricultural editor at Ohio

State University, in the Country Gentleman for June. "Portable dipping equipment operated on a custom basis has replaced nearly all other means of controlling external parasites of sheep in Ohio. Clinton County has thirteen sheep-dipping rings made up of groups of farmers owning cage and sweep equipment for dipping their flocks, but almost every one of those flocks was dipping in a portable custom outfit in 1939. Twenty custom outfits were operating in the state last year, and at least 125,000 sheep were dipped.

"L. K. Bear, animal husbandry specialist, Ohio State, says the dipping outfits show every kind of engineering ingenuity, as many of them were built from plans furnished by their owners. One man, a small operator, designed a unit so compact that it was bought for commercial manufacture...All operators are using an arsenical which controls para-

sites with one dipping."

Ask Bids on Salvaged Lumber

Bids for all or part of a half billion feet of hurricane-salvaged lumber have been requested in advertisements issued by the Northeastern Timber Salvage

Administration. The bids must be received by two o'clock in the afternoon of July first at the Administration Offices, 115 Chauncey Street, Boston, Massachusetts. The Fimber Salvage Administration was organized under the Federal Surplus Commodities Corporation following the 1938 hurricane, and is administered by the Forest Service, U. S. Department of Agriculture. The lumber specified consists of approximately 98 percent white pine and two percent red or Norway pine located at 340 storage sites in the six New England States.

Springfield
To Get Cotton
Stamp Plan

Secretary of Agriculture Henry A. Wallace today announced the designation of Springfield, Massachusetts, as the second city in which the Cotton Stamp program to move surplus cotton goods to public assistance

families through normal channels of trade will be tried out. Actual operation of the program is expected to begin in about 30 days. The Cotton Stamp program already is in operation in Memphis, Tennessee, first city to be designated.

Weather Conditions

The weekly weather and crop bulletin says that "In general, soil moisture is sufficient for present needs throughout most of the interior of the country,

though in South Dakota, where the soil has formed a hard, dry crust, rains would be helpful. Additional moisture is needed in most of Nebraska, but Kansas had too much rain in the eastern third of the State.

"The South is rather badly in need of moisture, especially east of the Mississippi River. The States from North Carolina to Alabama had less than normal rainfall during the month of April, and May, so far, has been outstandingly dry, having had generally less than half the normal. May has been much drier than normal also in South Dakota and Nebraska, but Kansas and portions of the adjoining States have had more than normal. West of the Rocky Mountains high temperatures and practically an entire absence of rainfall resulted in rapid evaporation and the top soil needs moisture in many places...

"In the Spring Wheat Belt conditions were generally favorable, with moisture ample practically everywhere, except that in South Dakota the dry, crusted topsoil is retarding germination of some late-seeded grain. Seeding has been about completed generally."

Cross Breeding Lowers Chicken Mortality Rate "Rhode Island Red males from a poor egg production strain were crossed with Barred Rock females of a good egg production strain at the New Jersey Agricultural Experiment Station for three years, 1936-

1938, inclusive," reports Poultry Digest for May. "Results of this cross....show that crossbred pullets were heavier than either of the standard breeds at 10 and 12 weeks of age. On the basis of a three-year average, the crossbreds were intermediate between the Barred Rocks and the Rhode Island Reds in body weight at 24 weeks.

"Mortality up to 24 weeks of age averaged 9.9 percent for crossbreds, 17.4 for Barred Rocks and 12.9 percent for Rhode Island Reds. On the average for the three-year period, the hybrids produced 127 eggs per bird, compared with 171 eggs per bird for Barred Rocks and 108 eggs per bird for Rhode Island Reds...."

DAILY DIGEST

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Vol. LXXVII, No. 37

Section 1

May 21, 1940.

GRAIN PRICE
PEG MEETS
OPPOSITION

"Despite the fact that Monday's rally in commodity futures markets under the leadership of wheat was at least partly due to the fact that minimum prices on grain futures were set over the week-end, grain circles,

both in New York and Chicago, were emphatic Monday in opposing this method of market stabilization, adopted by the grain futures exchange at the 'request' of the Secretary of Agriculture," says the New York Journal of Commerce for May 21.

"Leading grain houses...pointed out...that much of Monday's buying may have been under the false assumption that an absolute bottom has now been placed under the grain markets...Most immediate concern was felt over the possibility, however, that in case of the decline longs may find themselves completely 'locked in' without possibility of getting out of their commitments."

1940 WHEAT LOAN PROGRAM IS APPROVED A wheat loan program with average loan values to producers at about 64 cents a bushel was announced Monday for the 1940 crop by the Department of Agriculture. The loan, which was recommended by the Secretary of

Agriculture and approved by the President, is almost identical with the 1939 program.

The announcement of the loan follows a week of sharp decline in wheat prices. Department officials pointed out that announcement of the loan at an average rate of 54 cents a bushel means that with 1940 conservation and parity payments of 19 cents a bushel added, wheat farmers cooperating in the AAA program are assured, on the average, of a return of at least 83 cents a bushel at the farm, regardless of market prices.

A slight increase in the loan values on wheat in the soft red winter wheat region is the only important change in the new program. This increase was made on the basis of experience which indicated that previous loan values in that area were too low as compared with normal market relationships. The protein premium schedule is the same as last year. The average loan value of 64 cents is about 57 percent of the parity price, which on April 15, was \$1.13. The 1939 loan values averaged 63 cents. (Press Release)

Wallace Backing 10,000 Farmer Co-operatives

"Secretary Wallace is backing a move to bring the more than 10,000 farmer co-operatives under the Government's wing, " says the New York Journal of Commerce for May 20. "The Government would not exer-

cise control the administrative affairs of these co-operatives, would extend additional financial aid and advice, according to plans being considered by agricultural officials. The farmer co-operative movement is not new in the United States, but it has grown rapidly in recent years. Last year these co-operatives handled products valued at approximately \$2,000,000,000...

"Wallace has endorsed a bill by Senator Capper (Rep., Kans.) to create a Division of Co-operatives in the U. S. Department of Agriculture. The division would serve as the central agency for co-ordinating present Government aid to co-operatives and for the extending of additional assistance. Such a division, Wallace explained, would enable us to focus our thinking and planning dynamically on the co-operative method and make, I am sure, truly significant contributions in this whole field. "

Bran Beats Cottonseed Meal

"Gathered at Hays for the 27th annual Cattleman's Roundup, April 27, several hundred Kansans For Cattle Feeding heard how \$22 worth of wheat bran made as many pounds of beef as \$37.50 worth of cottonseed meal,"

according to the Kansas Farmer for May 18. "Reporting on results of cattle feeding tests at the Hays Agricultural Station, Dr. C. W. McCampbell told that two pounds of wheat bran had proved equal to one pound of cottonseed meal as protein supplement in feeding stock calves.... Bran will be the most economical gain producer just as long as the price is less than half the price of cottonseed meal...Doctor McCampbell explained that the protein problem is the most important problem confronting Kansas cattlemen of today. He declared feeders who neglect to provide necessary protein rob themselves of considerable net return."

New, Individual Baking Squash

"A new individual baking squash of attractive appearance and high quality has been introduced by the New York State Experiment Station at Geneva under

the name of Geneva Delicata," says J. D. Luckett, agricultural editor, New York State Experimental Station, in the Country Gentleman for June.

"The new squash appears to be mosaic resistant and is expected to sell readily at the roadside stand. The fruit of Geneva Delicata matures at about the same time as Table Queen. It is cylindrical in shape with shallow grooves, and averages 8 to 9 inches long and 31 to 4 inches in diameter ... The fruits keep well in storage and do not seem to be as susceptible to storage decay as do winter squash ... "

vs Evaporated

Retail Prices In the American Milk Review for May, Dr. C. W. of Fluid Milk Pierce, Professor of Agricultural Economics at Pennsylvania State College discusses the relationship of the retail prices of fluid milk to the mounting sales

of evaporated milk throughout the country. Doctor Pierce says, in part: "Nearly everyone interested in the dairy industry is aware of the rapidly increasing use of evaporated milk in the United States. In 1928 the average per capita use of evaporated milk in the United States amounted to slightly more than ten cans annually. Each year after 1928, with the exception of 1936, the annual per capita consumption of evaporated milk increased. In 1939 the use was 162 cans per person, an increase of more than fifty percent from the 1928 level. At present evaporated milk represents approximately one-tenth of the total use of evaporated and fresh milk in the United States...

"During the thirties when evaporated milk consumption was increasing steadily, the spread between the retail prices of fresh and evaporated milk was gradually widening. Considering average retail prices in 51 cities as compiled by the U. S. Bureau of Labor Statistics, 1.4 cans of evaporated milk could be purchased for the price of one quart of fresh milk in 1928. In 1939 a quart of fresh milk cost consumers as much as 1.8 cans of evaporated milk... The only logical conclusion is that an adjustment will have to be made in both the farm price and the distributors' margin if fresh milk is to compete successfully with evaporated milk..."

O'Neal Assures Farmers Will Back Roosevelt

"President Roosevelt Saturday was assured the support of farmers in amending law or forming a coalition government if necessary to insure the safety of the United States," says the New York Times of May 19.

"Edward A. O'Neal, president of the American Farm Bureau Federation, telegraphed him as follows: 'In this dark and tragic hour when our very civilization and our Christian democracies are in jeopardy I am sure that you and the Congress can depend on American farmers to support you in every essential measure, effort or amendment to present law and in the organization of a coalition government if necessary to insure the safety and security of the American people. "

Cotton Makes Plyboard Many Times Stronger

"By using cotton in a new plyboard, a Seattle firm has developed a board four to thirty times stronger than ordinary wallboards, the National Cotton Council reports in Memphis," according to the Louisville

Courier-Journal of May 17. "The new plyboard has more fire resistance, and can be painted or papered without the customary plastering required by ordinary plyboard, the council said. In the process, cotton covers the plyboard. The Seattle firm is turning out the new boards in full wall sizes."

Jones Asks \$100,000,000 of Farm Mortgage "An amendment to 'recapture' an additional \$100,000,000 from the Federal Farm Mortgage Corporation and thereby complete the President's plan to obtain \$700,000,000 from various Government agencies

was offered Monday by Jesse H. Jones, Federal Loan Administrator, before the House Banking and Currency Committee, according to the New York Herald Tribune of May 21. "The committee...took no action on the Jones proposal...In addition to the amendment offered by Mr. Jones to recapture the \$100,000,000 for the account of the treasury, he also proposed that the RFC be given power to make loans to the U. S. Department of Agriculture to expand its rural rehabilitation program. The amendment proposes that the RFC take chattel mortgages which had been put up as collateral for farm rehabilitation loans."

Plowing Under Fertilizers Give Better Yields In an article, "How Shall We Fertilize Vegetable Crops?" in the American Fertilizer for May 11, Victor A. Tiedjens of the Agricultural Experiment Station, New Brunswick, New Jersey, says, in

part: "Results from investigations to determine the best method of applying fertilizer for row crops during the past season on seventeen vegetable farms indicate in each case that plowing under chemical fertilizers gave as good or better yields than the growers' methods, which consisted of either row, side-dressing, broadcasting, or combinations of several methods. These tests were made on light to medium heavy soils which were fair to good for lime and pH. The biggest yields of tomatoes on fertilizer plots at the New Jersey experimental farm during the past three growing seasons were obtained where two-thirds to all of the fertilizer was broadcast before the ground was plowed...Broadcasting all the fertilizer after plowing or half of it and applying the remainder as two side-dressings, or placing the superphosphate under the row and applying the nitrogen and potash as side-dressing fell short of the highest yield by one to three tons."

New Water in In an article "New Water in New Mexico" in Western Farm Life, Stu Morrison says, in part: "If you had ever New Mexico climbed to the top of a windmill, and with hands blistered and raw from the effort, turned the vanes by hand, hour after hour, that your cattle might not die of thirst during the drought, you'd appreciate the high spirit of enthusiasm with which the farmers of Quay County, New Mexico, are awaiting the completion of the \$6,665,000 Tucumcari Irrigation Project, now being constructed by the Interior Department, Bureau of Reclamation. Forty-five thousand acres of land will be irrigated by water from the recently completed Conchas Dam. This dam, constructed at a cost of \$16,160,000 by the U. S. Army, is located at the confluence of the Canadian and Conchas Rivers... Conchas Dam backs the two rivers up a distance of fourteen miles... Under the Government terms, a single man may not own more than 160 acres (of the irrigated land). A married man is permitted to own 320 acres...."

DIGES.

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Vol. LXXVII, No. 39

Section 1

May 23, 1940.

LOAN ON 1940 RYE CROP ANNOUNCED

The Department of Agriculture announced Wednesday that a loan on the 1940 rye crop will be available to producers cooperating in the AAA Farm Program in the major rye-producing States of Michigan, Minnesota, Mon-

tana, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming. The loan will be available on farm-stored rye grading No. 2 or better or grading No. 3 solely on the basis of test weight. The loan weight, as was the case last year, will vary with the 1940 loan rate for No. 2 Hard winter wheat. Also as under the 1939 loan program, the rye loan rate for any area will be 22 cents less than the applicable 1940 wheat loan rate, but not more than 38 cents per bushel. This will be the second successive year that a loan on rye has been made in connection with the AAA Program. Loans will be made by the Commodity Credit Corporation and local administration will be handled by State and county AAA committees. (Press Release)

NO FARM ROOSEVELT

"President Roosevelt surveyed the agricultural OUTPUT REDUCTION -- situation with Secretary Wallace Wednesday in the light of latest war developments, and it was decided, according to the Secretary, that there should

be no further reduction of farm output, despite disappearance of Euro-

pean farm markets," says the New York Times of May 23.

"Alternatives mentioned by the Secretary after his conference included expansion of Federal commodity lending program to make possible the storage of agricultural surpluses and stimulation of consumption of farm products in this country through the stamp plan and otherwise. Meanwhile, there was no intention of reviving World War price-pegging methods, the Secretary said. For the present, at least, the agreement between the Federal Government and the commodity exchange on maintaining farm prices was adequate, he explained."

CHICAGO MILK MARKETING REFERENDUM

A referendum by mail among producers during the next 15 days on amendments to the order regulating the handling of milk in the Chicago, Illinois, marketing area was announced Wednesday by the Division of Marketing and

Marketing Agreements of the Department. The proposed changes are designed primarily to make adjustments in producer prices and in the classification of milk, and to revise administrative provisions of the order on the basis of operating experience. (Press Release)

"The April Bulletin of the Wirginia Department of Farmers Urged To Adopt Corn Agriculture suggests that farmers try several of the Hybrids in Va. adapted corn hybrids that showed up well in Virginia experiment station tests," says the Richmond Times-Dispatch of May 22. "Last year 64 hybrids were tested against a leading local variety. Hybrid Golden Prolific made the greatest increase in any of the tests, 26.9 bushels per acre more than the local variety. Hybrid White Dent made the greatest increase of any white hybrid. These two hybrids were developed and grown in Virginia, showing the importance of adaptation in hybrid corn. Only six out of 59 hybrids from other States gave satisfactory increases in the Williamsburg test. For several years many farmers have planted Virginia-grown hybrids with great success. A. C. Horton, of Charles City County says: years Hybrid Golden Prolific yielded 70 to 80 bushels per acre on land that never produced over 50 bushels before. "

Pig Starter

Mash Brings

Finish' Sooner

"John Schwab, Purdue University swine extension specialist, has developed a method of hog production that is proving to be very popular with the commercial pork producers of Indiana," says Dr. C. D. Lowe, exten-

sion animal husbandman, U. S. Department of Agriculture, in the Country Gentleman for June. "It is a combination of the McLean County system of swine sanitation and the balancing of the corn fed with extra protein supplement. The basis for further enriching the ration is the use of a special pig starter mash to be fed in a creep, which was Schwab's original contribution to swine production...

"Originally it was intended that this starter would be fed only from the time the pigs were a week old to weaning time. However, some growers continued to use it until their pigs reached weights of 100 pounds, and in a few cases until they reached market weight. The latter group found that they were able to produce 200-pound hogs, with market-topping finish at five months of age. As a result of this it became necessary to change the weighing age for pigs in the Indiana market hog show from 180 days to 170 days, because the hogs were heavier than the market desired..."

New Apple Varieties Reduce Drop "New apple varieties, born of a real need, are showing their value at Missouri's fruit station at Hountain Grove," according to the Farm Journal and the Farmer's Wife for June. "One of the new varieties, named Conrad,

has the qualities of Jonathan, but ripens later than Jonathan, so that it escapes premature dropping in September. Conrad is one of 1,500 crosses between Jonathan and Ben Davis. It bears like Ben Davis and drops less than Jonathan. A three-way cross, called Whetstone, is the result of a Ben Davis and Jonathan cross, which in turn was crossed with Delicious. It hangs on the tree and takes on more color after many other varieties drop."

BAE Analysis

of Fruit

fruits in 1940 will be smaller than the relatively large

Situation

supplies in 1939 but about equal to the average of recent

years, the Bureau of Agricultural Economics reported

Wednesday in its monthly analysis of the fruit situation. Moreover,

domestic consumer demand for fruits is likely to be somewhat improved

over that of the 1939-10 season. These two favorable factors probably

will offset to a large extent the unfavorable influence of the loss

of export markets. (Press Release)

Tomato Acre Yields and Noney Returns

In reporting the results of the second year's survey by the New Jersey Experiment Station of tomato production, William Martin, in the New Jersey Farm and Garden for May, says that a number of findings have been made which should

be beneficial to tomato growers in general. Mr. Martin reports that a high correlation exists between acre-yields and money returns. "Farms which averaged approximately ten tens to the acre last season," he says, "showed a return of sixty cents an hour for man labor. The middle group of farms, averaging a little more than seven tens to the acre, showed a return of thirty-eight cents an hour, and the lower group, with an average yield of 5.4 tens, showed a labor return of only seven cents per hour." The survey also reveals a striking correlation between the time of planting and the yield, "fields planted before May 15 averaging approximately one ten more per acre than fields planted after that date."

Chemists Made 25,000 New Compounds in '39 "Organic chemists of the world made approximately 25,000 new chemical compounds in 1939, an increase of about 6 percent, says a report by the American Chemical Society. Biochemistry, closely

allied to the organic field, basis of major advances in modern industry, registered an increase in activity of 5 percent," according to the Denver Post recently.

Professor E. J. Crane of Chio State University, editor of the Society's Chemical Abstract, points out America's growing leadership in chemical research of the prolific organic carbon compounds.

Corn Loan
Delivery
Announced

The Commodity Credit Corporation Tuesday announced that farmers having corn of the 1937 crop under loan may deliver it to the Corporation immediately in repayment of their loans. About 15 million bushels of this 1937

corn remain under seal on farms. It is contemplated that a substantial amount of the corn that is delivered will be exported under the export program recently announced, officials said. The 1937 corn was placed under loan at 50 cents per bushel under the 1937 AAA Farm Program. It was resealed at 57 cents per bushel in the fall of 1938 and was again resealed at 57 cents in the fall of 1939. (Press Release)

Honeybees "Subsequent to 1936 when Federal funds were first and Foulbrood provided for special investigations pertaining to the Experiments resistance of honeybees to American foulbrood, the Agricultural Experiment Stations of Arkansas, Iowa, Texas, Wisconsin and Wyoming, and the Bureau of Entomology and Plant Quarantine of the U. S. Department of Agriculture, have been studying this and related problems cooperatively," says the American Bee Journal for May.

"There is ample evidence that strains of honeybees vary markedly as to the manner in which they respond to American foulbrood. Some strains succumb to the disease readily, while others show more or less resistance to it... The superiority of Italian bees over the German, or black, bees in combating European foulbrood has long been known; so it is not surprising to find that variations also exist in the manner in which different races and strains of bees respond to American foulbrood...

"The aim of this cooperative experiment was, through selection and breeding, to find strains that were able to hold their own against the inroads of this disease, so that the use of such strains could augment the efforts of state apiary inspectors and bee-keepers to reduce the enormous losses caused by American foulbrood. The experimental work has proved, beyond question, that some strains of honeybees are highly susceptible to the disease, while others show pronounced tendencies to resist it. The burning of infected colonies is, therefore, highly important because it not only reduces sources of infection but likewise helps to eliminate stock highly susceptible to the disease...."

Canada Flue-cured
Tobacco Acreage
Cut Seen

A reduction of more than 30 percent from the record area of 69,000 acres harvested last year is expected in the Canadian flue-cured tobacco acreage in 1940, according to a dispatch received in the

Office of Foreign Agricultural Relations of the American Agricultural Attache, Clifford C. Taylor, in Ottawa. The 1939 flue-cured crop in Canada amounted to 82,625,000 pounds compared with 78,174,000 pounds in 1938 and with the 1933-37 average of 32,891,000 pounds. (Press Release)

Home Economics
For Boys Has
Arrived in U.S.

"Home economics for boys has definitely arrived!"
according to Romaine Micholson, instructor in a Washington (state) high school, in Practical Home Economics
recently. "The volume of literature that has appeared

during the last twelve years attests the fact. In 1938 the U. S. Office of Education reported that thirty-three states and the territory of Hawaii had programs of home economics for boys. The same office listed sixteen theses written for Master's degrees on the subject. It is significant that classes in home economics are provided only after a demand for them has been made by the boys themselves..."

DAILY DIGEST

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Section 1

May 24, 1940.

'MONEY FOR RURAL REHABILITATION IS INVESTMENT'

"The fundamental aspects of the reconstruction of rural life were discussed before the Senate Civil Liberties Committee Thursday by Dr. W. W. Alexander, Farm Security Administrator, and T. J. Woofter, Jr.,

economic adviser to the FSA," says the New York Times of May 24. "Mr. Alexander spoke of methods of halting unnecessary rural migration from the long-term point of view, beginning with the insufficiency of tillable land to support all persons seeking a livelihood in agriculture. Mr. Woofter asserted that government outlays for rural rehabilitation were erroneously classified as expenditures instead of investments..."

COTTON WEEK SHOWS BENEFIT, SAYS INSTITUTE "From retailers in various parts of the country reports on favorable results from their participation in this week's observance in Mational Cotton Week continue to reach the Cotton-Textile Institute, sponsor

of the event," says the New York Journal of Commerce for May 24.

"According to the Institute, support of Cotton Week this year on the part of retail stores has been more extensive than ever before and clearly shows the benefit of the momentum which this promotional event has accumulated during the past ten years since its inception in 1931..."

"ELECTRIC EYE"
MEASURES PROTEIN
IN WHEAT FLOUR

A simple method of determining protein in wheat flour based upon a new principle has been developed by the Agricultural Marketing Service through use of the "electric eye" or photoelectric cell. The new

method was described Wednesday by Dr. Lawrence Zeleny, research chemist with the Service, at the annual meeting of the American Association of Cereal Chemists in New York City.

According to Doctor Zeleny, the test with the electric eye follows extraction of the protein from the flour and its precipitation in the form of a stable colloidal suspension. This is a chemical process. With the protein in suspension, the ray of the electric eye is passed through a given quantity of the material. Its optical density or resistance to passage of the ray automatically measures the gluten protein content of the flour. (Press Release)

Section 2

Would Increase "The Agriculture Department...Thursday disclosed Rubber in plans for a campaign to increase rubber production in the Western Hemisphere," according to the Washington News of May 23. "The plans were drawn in anticipation of congressional appropriation of \$1,000,000 to survey possibilities of rubber production and establishment of experimental stations in this hemisphere....Officials said the department is prepared to proceed at 'emergency speed' in making the survey in Central and South America and in establishing rubber nurseries....

"The proposed program has a two-fold purpose: (1) To promote trade between the United States and other Western Hemisphere nations, and (2) to provide for a supply of rubber in a nearby market in the event of war."

Adding Calcium Chloride Firms Can Tomatoes

An article in the Fruit Products Journal for May says: "The addition of very small quantities of calcium chloride to whole tomatoes during the canning operation results in a marked improvement in

the firmness of the canned product even to the extent of withstanding the breakdown which usually accompanies the shipment of canned tomatoes, according to a report on experiments conducted by the State Experiment Station at Geneva, New York....The reaction of State and Federal health authorities to the addition of calcium chloride, as well as regulations concerning labeling requirements must....await demonstration of the value of the method by the industry...."

Best Layers
Have Lower
Death Rate

"Higher production in a poultry flock does not result in higher death rate," says Cora Cooke, poultry specialist at the University of Minnesota, in Wallace's Farmer for May. "A summary of records on 109 Minnesota

farms for 1939 shows that the death rate among 15 low producing flocks was 25 percent as compared with 13.5 percent for the 16 high producing units. The high producing hens averaged 190 eggs — more than those in the low producing group — and paid a labor return of \$1.73 each, as compared with 77 cents for the low ranking hens. There also was a greater loss of chicks in the low producing flocks."

Tobacco Chewers
Spread Mosaic
Disease to Leaf

"Tobacco chewers are one of the principal sources of mosaic diseases, according to tests made by Dr. W. D. Valleau and Dr. E. M. Johnson of Kentucky College of Agriculture," says the American Tobacco Journal

for May. "Tests show that chewing workers pass the disease from their hands to the plants while weeding, pulling or setting... There are other sources of infection, one being the use of diseased tobacco for fertilizer."

"It is quite likely that Texas will soon go into

Can Papaya the canning of papaya juice," says the Fruit Products

Juice Soon Journal for May. "...The Government experiment station
has developed varieties of the fruit best suited for
juice canning and they find that the soil in the Lower Rio Grande Valley
is particularly well suited for growing of trees. It is expected that
papaya production will become one of the State's important commercial
industries...Heretofore, most of the fruit has been grown in Hawaii..."

Round and Flat Kerneled Corn Yield Tests In discussing the difference in the yield of corn obtained from "round" kerneled hybrid seed as compared with flat-kerneled seed, Wallace's Farmer for May 18 says: "...Very little difference was noted in a com-

parison of plants produced from seed of various sizes and shapes at the Wisconsin Experiment Station in 1939. Only corn grown from small 'flats' showed any tendency toward smaller production. This likely was due to the fact that these kernels contained less stored food than some of the seedlings (which) did not survive unfavorable conditions that came before their own root systems were established."

Egypt Would Grow Its Own Tobacco "Considerable pressure is being brought upon the Egyptian Government to remove the prohibition against tobacco cultivation in that country, reports the Tobacco Division of the U. S. Department of Commerce," says the

Southern Tobacco Journal for May. "Egypt's annual consumption of tobacco approximates 6,000,000 kilograms. The Egyptian Ministry of Agriculture is directing experiments now to see if a suitable quality can be grown locally....'Virginia! type tobacco, from the United States, is now given increased preference by Egyptian consumers."

Plastics From The New York Times for May 25 publishes a report Cactus in Mex. from Douglas Malcolm of the American Express Travel
Service stating that a business firm in North Mexico will soon set up a plant for the manufacture from cactus of a product with the properties and uses of bakelite.

South's Wood In the Progressive Farmer for June, Eugene Butler Pulp Industry comments on the rapid rise of the wood pulp industry in the South. There are now 51 pulp mills in the South, according to Mr. Butler, consuming 14,000 cords of wood

a day in making kraft paper and other types of paper products.

"Southern mills produced nearly 2,800,000 tons of wood pulp in 1939," he says, "compared with 1,308,000 tons in 1935 and with approximately 200,000 tons in 1910. The output of Southern mills last year constituted about forty percent of the total United States production of 7,107,000 tons of wood pulp — the largest output on record."

Pea Vine Silage and Milch Cows

In the Journal of Dairy Science for May, B. Connor Johnson and W. H. Peterson, of the University of Wisconsin Agricultural Experiment Station, report on the results of an experiment to ascertain the effect of feeding pea

vine silage on the carotene and vitamin A content of milk. sults were: "Cows fed a good quality of pea vine silage produced a milk higher in carotene and vitamin A than when fed a dry ration. They also maintained milk production more satisfactorily on the silage than on the dry ration. It should not be concluded from these results, of course, that pea vine ensilage is always superior to alfalfa hay. Because of variations in the quality of both silage and hay, a general conclusion could not be drawn until after extended comparisons had been made.

Smoked Cheese Experiments

"Smoked cheese may earn a place alongside smoked meat as a tasty item for the dinner table, " says Wallace's Farmer for May 18. "Dairy industry investigators at Iowa State College are trying to perfect a process for imparting a uniform, desirable flavor to cheese by treating with smoke. The main problem is to maintain a low temperature so that the body and texture of the cheese will not be injured by melting ... High scoring Cheddar cheeses that have been aged for from four to five months are being used in the testing at Ames ... "

Successful Farming for June reports that Sycamore Ayrshire Herd Sets 10-year Farms, Douglassville, Pa., "has achieved the high distinction of having the only herd of the Ayrshire Output Record breed to make an average of more than 10,000 pounds of milk and 400 pounds of butterfat per cow for each of ten consecutive years...The 1939 average...is 11,218 pounds of milk and 463 pounds of butterfat for forty cows and heifers..."

"The Northwestern Turkey Growers' Association Turkey Growers Ask FSCC to Buy has filed a brief with the FSCC asking that action be taken to purchase breeder turkeys during the spring Surplus Birds months to relieve a distressed market situation on the (Pacific) Coast," according to the American Turkey Journal for May.

Beef-cattle Experiments in Oklahoma

"Beef-cattle experiments recently closed at the Oklahoma A. and M. College reveal the...fact that cobalt is needed on some ranges of that state to prevent a 'salt sick' condition," says Successful Farming for June.

"Iron and copper apparently helped the animal to use the cobalt effectively...It was also shown that lespedeza hay cannot be relied upon entirely to fatten yearling cattle, but must be supplemented with grain ... Protein supplements producing satisfactory returns were linseed meal, fish meal, cottonseed meal and soybean meal... Vitamins have not proved as important in beef-production as in the feeding of sheep and swine."